Trade Remedies Authority

Final Determination

INVESTIGATION No. AD0049

Dumping investigation into Suspension Poly(Vinyl Chloride) imported into the United Kingdom and originating in the United States of America

9 January 2025

Contents

Trade Remedies Authority

Section A: Introduction

A1. Investigation

1. This investigation covers the alleged dumping of Suspension Poly(Vinyl Chloride) imported into the United Kingdom (UK) from the United States of America (US). A full description of the goods concerned can be found in **Section E: The goods concerned and like goods.**

2. This section briefly summarises the legal framework for this final determination and the Trade Remedies Authority (TRA)'s main findings. The background to and details of the investigation are explained fully in the subsequent sections.

3. The purpose of this document is to set out the TRA's final determination and recommendation to the Secretary of State for Business and Trade (Secretary of State) and detail the facts and analyses on which we have based our recommendation. It should be read in conjunction with other public documents available for this case, which are available on the public file. Details of the recommendation can be found in **B4. Final determination and recommended measure**.

4. On 19 November 2024 we published our Statement of Essential Facts (SEF), and on 28 November 2024 we published our Provisional Affirmative Determination (PAD). See **Section D: Publication of the PAD and SEF** for more information.

5. For further information about our investigations, please see our public guidance.

A2. Legal framework

6. This final determination is made pursuant to paragraphs 11(5) and (6) of Schedule 4 to the Taxation (Cross-border Trade) Act 2018 (the Act).

A3. Period of investigation and injury period

7. The period of investigation (POI) is 1 January 2023 to 31 December 2023. To assess injury, the TRA has chosen the period from 1 January 2020 to 31 December 2023 as the injury period (IP).

Section B: Summary and findings

B1. Dumping

8. In accordance with paragraph 1(1) and 8(1)(a) of Schedule 4 to the Act the TRA has examined whether dumping of the goods concerned (for definition see **Section E1: Goods concerned**) has occurred.

9. The TRA has concluded that the goods concerned from the US are being dumped into the UK (see **Section G: Dumping**).

B2. Injury

10. In accordance with paragraphs 5 and 8(1)(b) of Schedule 4 to the Act, the TRA has examined whether the dumping of the goods concerned has caused or is causing injury to a UK industry in the like goods.

11. The TRA has concluded that the UK industry has suffered injury and that the dumped goods from the US have caused injury to the UK industry (see **Section H: Injury**)

B3. Economic interest test (EIT)

12. The TRA has considered the evidence before it and the following factors set out under paragraph 25 of Schedule 4 to the Act:

- the injury to UK industry in the like goods caused by dumping of the goods concerned and the benefits to that UK industry in removing that injury;
- the economic significance of affected industries and consumers to the UK;
- the likely impact of the dumping measure on affected industries and consumers in the UK;

- the likely impact of the dumping measure on particular geographic areas, or particular groups, in the UK;
- the likely consequences of the dumping measure for the competitive environment, and for the structure of markets for like goods, in the UK; and
- such other matters as the TRA considered relevant.

13. The TRA has concluded that the application of the anti-dumping measure it recommends to the Secretary of State meets the EIT (see **Section J: Economic Interest Test**).

B4. Final determination and recommended measure

14. In accordance with paragraphs 11(5) and 11(6)(a) of Schedule 4 to the Act, the TRA has made a final affirmative determination in respect of the goods concerned originating from the US that are currently classified under the following commodity codes:

- 3904 1000 15
- 3904 1000 80

15. It should be noted that the commodity codes changed during the POI (14 November 2023) from 3904 1000 10 and 3904 1000 90, both of which included some emulsion poly(vinyl chloride) (E-PVC) products, to 3904 1000 15 and 3904 1000 80, which represents only S-PVC. The commodity codes for E-PVC were amended to 3904 1000 25 and 3904 1000 85.

16. The TRA has determined that the goods concerned have been dumped in the UK and that the dumping of the goods concerned has caused injury to UK Industry in those goods. The TRA has determined that the application of the anti-dumping measure it recommends to the Secretary of State meets the EIT.

17. In accordance with paragraphs 17(3), 18(2)(a)(i) and 18(5) of Schedule 4 to the Act, the TRA recommends that the Secretary of State impose an ad-valorem duty on the goods concerned which are the subject of this final determination for a period of five years at the following rates:

Table 1: Recommended ad-valorem anti-dumping amount

US producer	**Duty amount (%)**
Formosa Plastics Corporation, USA	38.43
All other US producers / exporters (residual amount)	56.01

18. In the PAD our recommendation to require a guarantee was made pursuant to paragraphs 11(3) and 13(3)(a) of Schedule 4 to the Act. The provisional measure came into effect on 29 November 2024 with a requirement that importers of the goods concerned provide a guarantee in the form of cash, a bond, or a bank guarantee, equal to the estimated anti-dumping amount on their imports from the US.

19. The recommended definitive measures in this final determination are the same as the provisional measures. Therefore, in accordance with paragraph 19 of Schedule 4 to the Act and regulation 91 of the Trade Remedies (Dumping and Subsidisation) (EU Exit) 2019 (the Regulations), should the Secretary of State accept our final recommendation, the definitive measures should apply to imports of the goods concerned from 29 November 2024.

20. This means that, in line with paragraph 18(3) of Schedule 4 to the Act, our recommendation is that the definitive measures apply for a period of five years from the day after publication of the Secretary of State's notice giving effect to this recommendation, plus the period from 29 November 2024 until the date of publication of that notice.

Section C: Background

C1. Initiation

21. On 7 November 2023, the TRA received an application lodged by Inovyn ChlorVinyls Limited (the Applicant and UK producer) alleging that S-PVC imported into the UK from the US has been or is being dumped and that the dumping has caused or is causing injury to the UK industry in the like goods.

22. The TRA was satisfied that the application contained sufficient evidence of dumping and resulting material injury to justify the initiation of the investigation, and that the requirements referred to in paragraph 9 of Schedule 4 to the Act and regulation 51 of the Regulations had been met.

23. While the application also alleged threat of injury, the application contained sufficient evidence of material injury being caused, so the investigation was initiated on that basis.

24. The dumping investigation was initiated by the TRA on 8 January 2024, and the Notice of Initiation was published on that date.

C2. Participation in the investigation

25. The Secretary of State, the foreign government of the exporting country and other interested parties and contributors were notified accordingly and invited to register on the Trade Remedies Service to participate in the investigation (where applicable).

26. **Annex B: Interested parties and contributor responses** contains a summary of information received from all interested parties and contributors.

C2.1. UK producers

27. One UK producer is registered to the case, Inovyn ChlorVinyls Limited. The TRA is not aware of any other UK producer of S-PVC.

C2.2. Exporters/Producers from the United States of America

28. A list of all cooperating participating US exporters and US producers can be found in Annex A.

29. Due to there being only six responses received during the registration period, the TRA did not sample.

30. The TRA received a full questionnaire response from the following US producing exporter:

    - Formosa Plastics Corporation, USA (FPC USA)

31. The TRA received a full questionnaire response from the following US non-producing exporter:

    - Ravago Americas LLC dba Resintech (Resintech)

32. An anti-dumping amount will be allocated to US producing exporters only; US non-producing exporters will not receive individual anti-dumping amounts. Exports into the UK will have the applicable US producer anti-dumping amount applied based on the duty of the relevant US producer, in accordance with customs legislation and processes.

33. The TRA recommends that an anti-dumping amount be applied to the cooperating producing exporter, FPC USA, and a residual anti-dumping amount be applied for all other US producers, as per table 1 above.

C2.2.1 Non-cooperative US exporters

34. The deadline for completing a full questionnaire passed on 8 March 2024. The following parties who had completed a pre-sampling questionnaire, did not provide a full questionnaire response:

- Westlake Corporation, USA
- Tricon International Ltd
- Vinmar International LLC
- Oxy Vinyls LP

35. Additionally, on the 7 March 2024, after initially indicating that they would complete a full questionnaire, US producing exporter, Oxy Vinyls LP (Oxy) informed the TRA that they did not wish to respond to the TRA's request for information but would cooperate with the remainder of the investigation. Oxy made three further submissions as follows:

- A paper on 22 March 2024, published on 17 May 2024, questioning the validity of the application that led to the investigation
- A paper on 18 June 2024, published on 26 September 2024, commenting on the business survey responses
- A paper on 20 August 2024, published on 26 September 2024, commenting on the registration of imports

36. Oxy did not provide all the information requested of them, and they were therefore deemed non-cooperative for the investigation.

37. Pursuant to regulation 49 of the Regulations, the TRA has therefore deemed the above parties to be non-cooperative with regards to the investigation.

C2.3. Importers

38. During the registration period no importers of the relevant goods registered their interest in the case.

39. On 1 October 2024 Palram DPL Limited (Palram), an importer and downstream user of S-PVC registered to the case and provided an abridged questionnaire on 9 October 2024.

C2.4. Other Interested Parties/Contributors

40. Other Interested Parties/Contributors include:

- Genuit Group Plc
- Vestolit GmbH
- Eurocell Plc
- The British Plastics Federation

C3. How submitted data was used

41. The TRA has used data submitted by cooperating parties as part of the evidence upon which we have based our assessments and formed our conclusions. We have compared submitted data against the totality of relevant evidence available to us including submissions from other interested parties and contributors, evidence from TRA data submissions, and publicly available data from government, industry and other sources. A list of data submitted and considered by the TRA is listed in Annex B.

42. We have also used submitted data to corroborate or gain a level of assurance as to that data itself, or other evidence either submitted to us or gathered by us.

C4. Verification of data

43. The TRA undertook verification activities in relation to the information provided by the cooperating interested parties, during which the completeness, relevance, and accuracy of that information was assessed. The TRA has considered the information supplied by cooperative interested parties and contributors, provided that this information:

- complied with the applicable statutory requirements and the TRA's public guidance
- was verifiable
- could be used without undue difficulty
- was supplied within an applicable time limit and in a form that the TRA requested

44. The TRA conducted onsite verification visits with FPC USA and the UK producer (Inovyn). Remote verification was completed with Resintech.

45. Verification reports were produced for each of the parties verified and non-confidential versions of these reports are available on the public file.

46. Secondary source information was used in accordance with the Regulations. This secondary information was treated with special circumspection and, where practicable, verified using independent sources. This included, but was not limited to, official import statistics and data pertaining to relevant markets.

C5. Registration of imports

47. On the 14 May 2024, the Applicant submitted a request to the TRA asking for the registration of imports of S-PVC from the US. The Applicant considered that the following developments in other markets were likely to lead to deflections of trade into the UK of S-PVC originating in the US:

- 15 May 2023 - India imposed safeguard measures on the import of US S-PVC
- 26 March 2024 - India announced an investigation into dumping of S-PVC from, among other countries, the US
- 14 June 2024 - the EU was scheduled to announce provisional measures on S-PVC from the US to come into effect on 12 July 2024

48. The Applicant also stated there was a possibility that traders would import and stockpile the product in anticipation of potential UK measures. The registration of imports would allow potential duties to be collected from the earliest date possible to reduce the effects of any deflection of trade and/or stockpiling in anticipation of potential UK measures.

49. Following consideration of the identified risks of deflection of trade and stockpiling, the TRA asked the Secretary of State to publish a notice, instructing HMRC to register imports of the goods concerned.

50. Pursuant to paragraph 29(1) of Schedule 4 to the Act, the Secretary of State published Trade Remedies notice 2024/07 on 25 July 2024, effective from 26 July 2024. This instructed HMRC to register the importation of S-PVC from the US, to facilitate the investigation into the goods, and to allow the application of an additional amount of import duty to the relevant goods to begin on a date before the day after the date of publication of the public notice giving effect to this additional amount, should the requirements of regulation 91(2) of the Regulations be met.

51. The TRA reviewed the data from the registration of imports in October 2024, and this is further addressed in **Section I2: Registration of imports** below.

Section D: Publication of the PAD and SEF

D1. Overview

52. On the 19 November 2024, the TRA published the SEF for AD0049 in accordance with regulation 62 of the Regulations.

53. On the 28 November 2024, the TRA published the PAD for AD0049, following the Secretary of State's acceptance of the provisional measures.

54. Following publication of the PAD and the SEF, the TRA invited interested parties, contributors and any other parties who supplied information to the TRA to make submissions in response. The deadline for submission of comments was 23:59 hours on 3 December 2024, in accordance with Regulation 62(2) of the Regulations.

55. The TRA received one submission with comments from the Applicant, Inovyn.

D2. SEF comments

D2.1 The Applicant

56. The Applicant submitted comments on the SEF on the 3 December 2024 and the submission was published to the public file on 4 December 2024. The Applicant supported the TRA's recommendation to the Secretary of State of an ad-valorem rate applied to the importation of S-PVC from the US into the UK.

57. The Applicant raised one point regarding potential circumvention of the measures. This concerned the differences in duty rates, where the TRA recommended an individual duty rate for the cooperating producing exporter (FPC USA) that was 17.58 percentage points lower than the residual amount for non-cooperating producing exporters.

58. As a result, and considering the trader distribution model, the submission asked that the TRA monitor trade flows to stop any potential channelling of exports through the cooperating producing exporter, to circumvent the higher residual amount payable on imports from non-cooperating producing exporters.

59. The TRA notes that the application of the lower individual duty rate is conditional upon presentation of a valid commercial invoice, accompanied by a declaration signed and dated by an official of the entity issuing the valid commercial invoice.

60. HMRC carries out compliance monitoring for trade remedies measures.

Section E: The goods concerned and the like goods

E1. Legislative framework

61. The goods concerned are defined in regulation 2 of the Regulations as "the goods described in the relevant Notice of Initiation of a dumping investigation under regulation 65(1) [of the Regulations]".

62. In accordance with paragraph 17(2) of Schedule 4 to the Act, the goods to which a final affirmative determination is made are referred to as the "relevant goods". Since the goods to which our final affirmative determination and recommendation apply are the same goods as defined in **Section E2: Goods Concerned** this final determination will hereafter only refer to the "goods concerned".

63. For the purposes of the final determination, we will refer to "like goods" as those which are like the goods concerned in all respects (paragraph 7 of Schedule 4 to the Act). A further description of the like goods is set out in **Section E3: Like Goods** and the assessment of the goods concerned is set out in **Section E2: Goods Concerned**.

E2. Goods concerned

64. The goods concerned in this investigation are S-PVC originating in the US and exported to the UK, described in the Notice of Initiation as:

"Suspension Poly(vinyl chloride), not mixed with any other substance"

65. The goods concerned are currently subject to the following commodity codes:

- 39041000 15
- 39041000 80

66. The goods concerned are S-PVC produced in the US for export to the UK. Similar goods sold on the US domestic market, goods imported into the UK from third countries, and goods produced by the UK industry, are described as like goods if they meet the definition in paragraph 64 above.

E3. Like goods

67. In assessing whether the goods produced by the UK industry are like the goods concerned in all respects or with characteristics closely resembling them, the TRA has considered:

- physical likeness, including physical characteristics
- commercial likeness, including competition and distribution channels
- functional likeness, including end-use or interchangeability of the goods
- similarities in production, including method of production and inputs
- other relevant characteristics

68. The TRA has found that:

- Like goods are produced by UK industry. These have the same general likeness as the goods concerned in all respects.
- Like goods are also produced by the cooperating US producer, FPC USA for sale on the US domestic market. These have the same general likeness as both the UK produced like goods and the goods concerned in all respects.

69. The TRA has determined that the goods produced by the UK industry defined in **Section E3: Like goods** are like the goods concerned in all respects and are therefore like goods for the purposes of paragraph 7 of Schedule 4 to the Act.

E4. Product control numbers

70. The TRA uses product control numbers (PCNs) to define and group different types of products that fall under the goods description above, and to match exported goods with like goods.

71. Having considered these areas we concluded that the goods could be categorised under the one PCN number.

72. The PCN structure used in this case can be seen in Table 2:

Table 2: PCN Table

Description	PCN
Suspension PVC, not mixed with any other substance	1

73. The PCN structure was provided to interested parties and contributors for comment in the pre-sampling questionnaires following initiation of the investigation. Oxy provided a comment on the PCN structure, asking that the structure should provide greater granularity for comparison. Oxy chose not to submit a full questionnaire.

74. No concerns regarding the PCN structure were raised by other interested parties, therefore the PCN structure was maintained.

75. During verification of both US and UK data, price comparisons between varying degrees of polymerisation ('K' values) were made between the goods concerned and then between the like goods. In both cases the comparisons did not show an impact on prices that justified more than one PCN.

Section F: The UK industry and market

F1. UK industry

76. In accordance with paragraph 6(1) of Schedule 4 to the Act, the UK industry is defined as:

    a) all the producers in the UK of like goods, or

    b) those of them whose collective output of like goods constitutes a major proportion of the total production of those goods in the UK.

77. Information provided in the application and through independent research was used to establish the extent of the UK industry.

78. The TRA established that the Applicant accounted for 100% of UK production during the IP. The Applicant therefore meets the definition of “UK industry” under paragraph 6(1)(a) of Schedule 4 of the Act and will therefore be treated accordingly for the purposes of this investigation.

79. UK industry sells directly to downstream businesses. There are no intermediary sales / non-associated trader sales.

F2. UK market

80. The UK market for S-PVC covers a wide range of applications and industry sectors, being a base product to produce goods in building/construction, healthcare, automotive, aviation and the food packaging industries. Demand has historically fluctuated, with the performance of the construction industry having the largest influence on demand.

81. Purchasers of S-PVC are downstream goods producers/manufacturers, and in the UK traditionally commit to purchasing through flexible annual contracts, so an indication of demand is known in advance for production planning. This is common

whether buying from the UK producer or US producers. Producers often overproduce from estimated demand to be able to meet fluctuations in demand in good time, which is feasible due to the product's long shelf life.

82. UK domestic demand for S-PVC has exceeded domestic supply, so the UK relies on imports of S-PVC to satisfy demand.

83. The UK consumes 400,000-500,000 mT of S-PVC per year. Table 3 below shows the demand trend in S-PVC against the base year of 2020 for the IP.

Table 3: UK consumption of S-PVC

	2020	2021	2022	2023
	Year one	Year two	Year three	POI
UK consumption Indexed to 2020	100	126	117	102

84. Imports of S-PVC have traditionally been met by EU, Mexican and US producers, although imports from 52 countries entered the UK during the IP.

F3. Upstream and downstream businesses

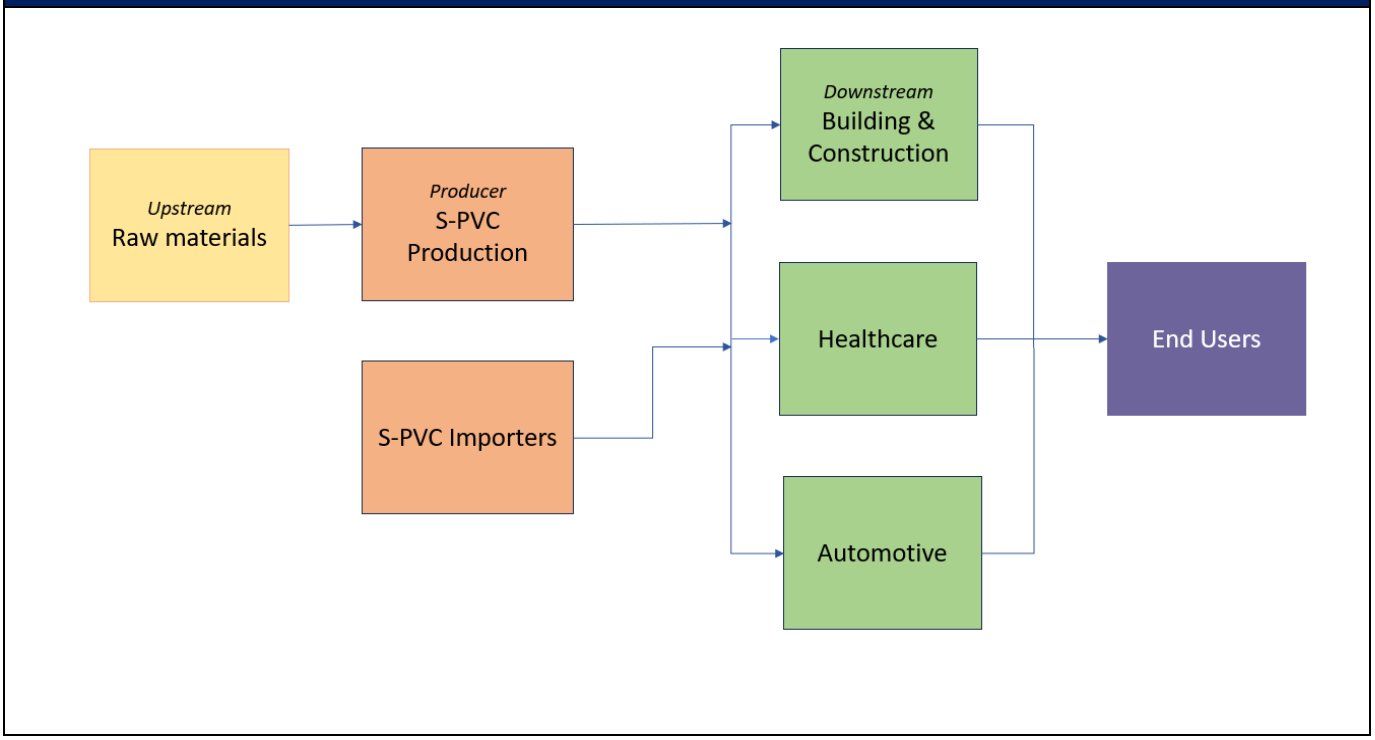
85. Upstream businesses for S-PVC includes suppliers of brine, ethylene, chlorine, and energy. We did not receive any submissions from upstream businesses, but we know from the UK producer questionnaire that there is UK supply.

86. Downstream businesses, are users of S-PVC, producing end products from S-PVC resin, using a variety of techniques such as blow moulding, extrusion, and injection moulding.

87. Downstream businesses that use S-PVC may also import S-PVC for their own use.

88. Figure 1 below shows an overview of the S-PVC supply chain.

Figure 1: An overview of the S-PVC supply chain



Section G: Dumping

89. In accordance with paragraph 1(1) of Schedule 4 to the Act, goods are ‘dumped’ in the UK when those goods are imported into the UK and their export price is less than their normal value.

90. The TRA has assessed whether the goods concerned are being dumped in accordance with paragraphs 1(1) and 8(1)(a) of Schedule 4 to the Act.

91. Paragraph 1(2) of Schedule 4 to the Act defines the ‘normal value’ of goods as:

    a) the comparable price, in the ordinary course of trade, for like goods when destined for consumption in the exporting foreign country or territory, or

    b) such other price or value as may be determined in accordance with provision made by regulations for specified cases where it is not appropriate to use the price in paragraph (a).

92. The dumping margin is the difference between the export price and the normal value of the goods being dumped, described as a percentage of the export price at a level of the cost of insurance and freight (CIF).

93. The TRA has calculated dumping margins in accordance with paragraph 2 of Schedule 4 to the Act and regulation 6(2) of the Regulations. Calculating the dumping margin involved the following stages:

    a) calculating the normal value of the goods concerned

    b) determining the export price

    c) ensuring a fair comparison between the normal value and the export price

94. The TRA calculated the dumping margin using verifiable data provided by FPC USA.

G1. Exporting country analysis

95. The TRA analysed publicly available information together with information provided in pre-sampling questionnaire responses from three US producing exporters, three US non-producing exporters, and one UK producer. Based on this, the TRA established that there were four significant producers of S-PVC in the US of the goods in scope of this investigation during the POI, Shintech Inc, Oxy Vinyls LP, Westlake Corporation USA and Formosa Plastics Corporation USA. Information provided by three US non-producing exporters indicated that at least three US producers exported the goods concerned to the UK in the POI.

96. Sales to the UK from the US take one of two approaches, direct sales from US producers to UK downstream users of S-PVC, and sales from US based non-associated traders (US non-producing exporters) who buy from US producers and sell both directly into the UK to downstream users or hold in the UK, using bonded warehousing to provide a just in time service to UK customers.

97. During the POI, exports of the goods concerned accounted for an estimated volume of 45,915mT and export value of £38 million. This represents an export share of 17%.

Table 4: US exports of the goods concerned in mT to the UK

	2020	2021	2022	2023
	Year one	Year two	Year three	POI
Volume (mT)	19,661	26,973	35,468	45,915

Source: HMRC Import Statistics, Questionnaire responses

98. Based on publicly available industry data and confidential questionnaire responses, the TRA has established that the US had production capacity of 8,665,000mT of S-

PVC in the POI. Argus media[1] report that this may rise by the end of 2024 by an additional 380,000mT. Estimated spare capacity in the US was 2,527,000mT in the POI.

99. US spare capacity is sufficient to meet total UK consumption of S-PVC five times over.

100. The TRA established total production of 6,138,000mT of S-PVC in the POI (using PSQ data, publicly available production data, and confidential subscription-based industry data) with an estimated 1,235,000mT exported. A comparison of the estimated production volume with the estimated export volume to the UK shows that approximately 0.75% of the respective goods produced in US were exported into the UK.

G2. Normal value

101. In accordance with regulation 6(1) of the Regulations, Part 2 of the Regulations applies where the TRA is required to determine whether goods have been or are being dumped into the UK as defined by paragraph 1 of Schedule 4 to the Act. To make such a determination the TRA must determine the normal value of the goods concerned as per regulation 6(2)(a) of the Regulations.

102. In accordance with regulation 7(1) of the Regulations, the TRA must use the comparable price to determine the normal value unless it is not appropriate to use that price.

103. Regulation 7(2) of the Regulations sets out the circumstances in which it is not appropriate to use the comparable price to determine the normal value of the goods

[1] Shin-Etsu outlines delayed US PVC expansion timeline | Latest Market News (argusmedia.com)

concerned. This includes where there are no sales of the like goods in the ordinary course of trade in the domestic market of the exporting country or territory.

104. Regulation 9 of the Regulations sets out when the TRA may consider the sales of the like goods in the exporting country or territory as not being in the ordinary course of trade. This includes, in regulation 9(1)(a) of the Regulations, where the goods are sold at prices below the per unit (fixed and variable) costs of production plus administrative, selling and general costs (unprofitable sales).

105. Pursuant to regulation 9(2) of the Regulations, the TRA may only regard unprofitable sales as not being in the ordinary course of trade where it considers that the sales are made within an extended period of time (normally one year), in substantial quantities, and at prices which do not provide for the recovery of all costs within a reasonable period of time.

106. The TRA examined sales made by FPC USA in the exporting country during the POI (transactions under consideration for the determination of the normal value) and found that:

    a) the weighted average selling price was below the weighted annual average per unit costs during the POI, calculated by reference to sales volume, and

    b) the volume of units sold below annual average per unit costs represented more than 20% of sales

107. The TRA found that unprofitable sales were made in substantial quantities, within an extended period of time, and at prices that were insufficient for the recovery of costs within a reasonable period of time. The TRA therefore found that sales of the like goods in the exporting country were not in the ordinary course of trade, and that it is not appropriate to use the comparable price to determine the normal value of the goods concerned.

108. Where it is not appropriate to use the comparable price the TRA must determine the normal value of the goods in accordance with regulation 8 of the Regulations.

109. The TRA calculated the normal value of the goods concerned by determining the costs of production plus a reasonable amount for administrative selling and general (AS&G) costs and profit in accordance with regulation 8(1)(a) of the Regulations. Full details can be seen in **Section G2.1 Constructed Normal Value**.

G2.1. Constructed normal value

110. As set out in **Section G2 Normal Value**, the TRA found that it is not appropriate to use the comparable price to determine the normal value of the goods concerned.

111. The TRA has determined the normal value of the goods in accordance with regulation 8(1)(a) of the Regulations, which sets out that the TRA must determine the costs of production plus a reasonable amount for administrative selling and general (AS&G) costs and profit, which have themselves been determined in accordance with regulations 11 and 12 of the Regulations.

112. Regulation 11(2) of the Regulations sets out that where regulation 11(3) of the Regulations applies, the TRA will normally calculate the costs of production of the like goods on the basis of records kept by the US producer.

113. Regulation 11(3) of the Regulations applies when the records of the overseas exporter are in accordance with generally accepted accounting principles of the exporting country, and reasonably reflect the costs associated with the production and sale of the like goods in the exporting country. The TRA considers FPC USA's records to be verifiable for the purposes of this final recommendation and considers that the requirements of Regulation 11(3) are met. The TRA has therefore used these costs in constructing normal value.

114. In accordance with regulation 12(1) of the Regulations the TRA must determine a reasonable amount for AS&G costs and for profits when determining the normal value of the goods in accordance with regulation 8(1)(a).

115. Regulation 12(2) of the Regulations states that the TRA must determine the AS&G costs on the basis of actual data pertaining to the production and sales by the overseas exporter of the like goods, in the ordinary course of trade, in the domestic market of the exporting country or territory.

116. The TRA has determined the AS&G costs using FPC USA's total AS&G costs in respect of the like goods for the POI.

G2.2. Reasonable level of profit

117. The TRA found that it could not reasonably determine a level of profit based on actual profit levels pertaining to the production and sales of the like goods of FPC USA during the POI.

118. The TRA determined that production and sales of the like goods of FPC USA were not made in the ordinary course of trade and so could not be used in accordance with regulation 12(2) of the Regulations.

119. Therefore, the TRA instead determined a reasonable level of profit under regulation 12(3)(c) of the Regulations based on the weighted average profit of those sales by the US exporting producer in question during the POI that were profitable, in the US domestic market.

G3. Export price

120. In accordance with regulation 15(1) of the Regulations, the export price is the price the goods concerned are sold for, or the agreed price at which they are to be sold, to either an importer in the UK or a third party outside of the UK for export to the UK.

121. The TRA found that FPC USA export sales consisted of non-associated sales to importers in the UK, and to third parties outside of the UK for export to the UK. We therefore used the export sales submitted by FPC USA for determination of the export price in accordance with regulations 15(1)(a) and 15(1)(b) of the Regulations.

G4. Fair comparison

122. To ensure a fair comparison, the normal value and export price need to be compared at the same level of trade; normally on an ex-factory level and in respect of sales made as near as possible the same time, in accordance with regulation 16(1) of the Regulations.

123. In accordance with regulation 16(2) of the Regulations the TRA may make adjustments for any differences which affect price comparability including differences relating to:

- conditions and terms of sale
- taxation
- levels of trade
- quantities
- physical characteristics

124. FPC USA reported fair comparison adjustments to their sales data. The TRA reviewed and adjusted those figures where the TRA deemed necessary.

125. The TRA determined that fair comparison adjustments to the export price were necessary to bring the export price to a comparable ex-factory level. The following fair comparison adjustments were made to the export price:

- Credit

- Freight Forwarding Charges
- Domestic Freight
- Packing

126. The TRA considered whether the fair comparison adjustments made to the domestic sales would need to be made to the constructed normal value to be able to compare this to the export price at the same level. Fair comparison adjustments for credit and level of trade were made to the constructed normal value in accordance with the data received from the participating US producer.

G5. Dumping margin

127. In accordance with regulation 17(1)(a) of the Regulations, the TRA compared a weighted average normal value with a weighted average of prices for all comparable export transactions, from the cooperating US producing exporter, to calculate the dumping margin.

128. The TRA calculated a dumping margin for the US producing exporter that is cooperating in the investigation, FPC USA. There are currently no other cooperative US producing exporters.

129. The TRA calculated a dumping margin for all other non-participating US producing exporters. This is known as the residual amount.

130. The TRA has determined that the cooperating US producing exporter, FPC USA has dumped S-PVC into the UK at the margin shown below in Table 5.

131. In accordance with regulation 38(4)(b) of the Regulations the TRA has determined the residual amount taking account of information provided by FPC USA. Under regulation 38(3) the TRA may determine the residual amount using any reasonable means. In this case the residual amount has been determined using a method of

selecting the highest dumping margin established for a given month in the POI, between FPC USA's two production sites, which was the dumping margin established for January 2023. Table 5 also shows the residual amount.

Table 5: Dumping Margins

Country	US Producer	Dumping Margin (%)
US	Formosa Plastics Corporation, USA	38.43
US	All other US producing exporters (residual amount)	56.01

Section H: Injury

132. Injury is the term used when there is evidence of a UK industry being harmed by dumped goods. Paragraph 5 of Schedule 4 to the Act defines 'injury' to a UK industry in particular goods as:

    a) material injury, or the threat of material injury, to the industry, or

    b) material retardation of the establishment of the industry.

133. In accordance with regulation 27(2) of the Regulations, as the TRA has determined that goods have been dumped into the United Kingdom, it must determine whether:

    a) UK industry has suffered or is suffering injury in accordance with regulation 30 of the Regulations (determination of injury) and

    b) the dumped goods have caused or are causing that injury to that UK industry

134. To determine whether a UK industry is suffering or has suffered injury from imports of the goods concerned, in line with regulation 30 of the Regulations, the TRA has to examine four factors:

    a) the volume of the dumped goods during the IP

    b) the effect of the imports on prices in the UK market for like goods during the IP

    c) the consequent impact of the dumped goods on UK industry during the IP

    d) any other factors it considers relevant

135. To determine whether the dumped goods have caused or are causing injury to UK industry, in line with regulation 35 of the Regulations, the TRA has also examined whether any known factors other than the dumped goods (other known factors) have

caused or are causing injury to a UK industry. The TRA considered the following factors:

a) Volume of third country imports and prices

b) Changes in the pattern of consumption of the like goods in the UK

H1. Injury Considerations

H1.1. HMRC Import Statistics

136. We used the official import statistics published by HMRC for our analysis. The official import statistics published by HMRC report import volumes in kilograms (kg). This has been converted to metric tonnes for this investigation (1mT = 1,000kg).

137. On 14 November 2023, the commodity codes changed from 3904 1000 10 and 3904 1000 90, both of which included some emulsion poly(vinyl chloride) (E-PVC) products, to 3904 1000 15 and 3904 1000 80, which represents only S-PVC. The codes for E-PVC were amended to 3904 1000 25 and 3904 1000 85.

138. Research using confidential questionnaire data and HMRC data has demonstrated that the 8-digit HMRC data (3904 1000) for the US did not include E-PVC, and only contained S-PVC.

139. HMRC import statistics publicly available at an 8-digit level provide a good reflection of the trend of UK imports of S-PVC from the US.

140. E-PVC was imported into the UK from the EU and made up approximately 10% of imports to the UK from EU countries under the 8-digit data from HMRC in the IP.

141. The TRA has used publicly available 8-digit data from HMRC for imports analysis that is based on country of dispatch. However, to demonstrate trends in this report, some

confidential HMRC 10-digit data has been used in relation to country of origin of those imports.

142. PSQ data from three US producing exporters and three US non-producing exporters showed that a total of 42,000-49,000mT was exported to the UK in the POI. This represents 95-110% of the exports recorded by HMRC at an 8-digit level. The TRA knows of one US producer who did not complete a PSQ.

H1.2. Unit of measurement

143. The US industry commonly uses US cents per lb and US dollars per short ton as the metric for pricing. The UK industry commonly uses Great British Pounds (GBP) per mT as its metric for pricing. In order to compare the trends all volume units used have been converted to mT, and unit pricing as GBP per mT.

H2. Injury Analysis

H2.1. Volume of dumped goods

144. In accordance with regulation 31 of the Regulations, when determining whether the UK Industry is suffering injury, the TRA has considered where there has been a significant increase in the dumped goods in the UK either in absolute terms (the volume of dumped goods being imported into the UK market) or relative to domestic production or consumption.

H2.1.1 Volume of dumped goods in absolute terms

145. The TRA has assessed absolute changes in the volume of imports of the goods concerned from the US using HMRC 8-digit data, along with confidential PSQ data. Confidential HMRC data indicated there were less than 2,000mT of additional imports during each year of the IP that included a US country of origin.

Table 6: US imports of the goods concerned in mT				
	2020	2021	2022	2023
	Year one	Year two	Year three	POI
Volume (mT)	19,661	26,973	35,468	45,915
Indexed to 2020	100	137	180	234

Source: HMRC Import Statistics, Questionnaire responses

146. Table 6 shows the trend in absolute volume of imports originating from the US. During the IP there has been significant gain in volume, which has been prolonged, with year-on-year increases. US imports were 37% higher in 2021 than 2020 and this pattern continued to rise as 2022 imports were 80% higher than 2020 and 2023 imports were 134% higher than 2020 volumes.

H2.1.2 Volume of dumped goods relative to domestic production

147. While there was a significant increase of US exports to the UK in 2022 and 2023 as Table 6 shows, this was at a time when UK domestic production fell, with a small increase in production for 2021 over 2020, but a subsequent decrease in production over 2022 and 2023. Table 7 demonstrates this. US imports increased by 134% above 2020 levels by 2023 while UK production saw a decline of 35% in the same period.

Table 7: UK Production for the UK market compared to US imports				
	2020	2021	2022	2023
	Year one	Year two	Year three	POI
UK production Volume (indexed)	100	122	75	65
US import volume (indexed)	100	137	180	234

Source: HMRC Import Statistics, Questionnaire responses

148. US imports of the goods concerned have increased significantly in the IP, and when compared to the decreasing UK production volumes the change is even more significant.

H2.1.3 Volume of dumped goods relative to domestic consumption

149. UK consumption is calculated on the basis of HMRC and confidential data including:

a) import volumes of the goods concerned

b) import volumes of like goods from third countries and

c) domestic sales of the UK industry's like goods

Table 8: UK consumption of S-PVC

	2020	2021	2022	2023
	Year one	Year two	Year three	POI
UK consumption (indexed)	100	126	117	102
US import volume (indexed)	100	137	180	234

Source: HMRC Import Statistics, Questionnaire responses

150. Table 8 shows the change in total consumption of S-PVC. Overall consumption rose by 26% points in 2021 over 2020. Consumption started to fall in 2022, with a reduction of 9% points and a further fall of 15% points in 2023.

151. As Table 8 shows, UK consumption of S-PVC increased in 2021 following the COVID 19 period of 2020, when demand was low due to many industries not being fully operational in the UK, including the construction industry which is a significant user of S-PVC derived products (pipes, PVC windows and doors, insulated cabling etc). The initial growth in consumption in 2021, was followed by a decrease in demand leading to the consumption rate in 2022 and 2023 falling, with consumption in 2023 only 2% above 2020 levels.

152. Comparing US imports to UK consumption (Table 8), US imports increased by 11% points more than UK consumption in 2021, and in the years 2022 and 2023 US imports grew in a declining UK market.

153. US imports of the goods concerned have increased significantly in the IP, and when compared to the UK consumption volumes, US imports are increasing in volume at a greater rate than consumption, with the greatest increases seen in 2022 and 2023.

H2.2. Effect of dumped goods concerned on prices

154. In accordance with regulations 30(2)(b) and 32 of the Regulations, to assess the effect of the dumped goods on prices of the like goods in the UK during the IP, the TRA has considered whether:

- there has been significant price undercutting by the dumped goods as compared with the price of the like goods produced in the UK; or
- the dumped goods have depressed or suppressed domestic prices of the like goods produced in the UK to a significant degree.

H2.2.1 Price undercutting

155. Price undercutting is where the imported goods are consistently sold at a price below that of the like goods in the UK.

156. An undercutting margin is calculated by comparing the UK sales price (ex-factory) with the import price (the landed price) for similar products during the POI. The landed price is the price of the goods concerned when they arrive at a UK port. It equates to the CIF import price plus any relevant import duties and other costs associated with importing.

157. An undercutting margin (%) reflects the extent to which landed prices of the imported goods concerned are lower than the UK sales prices of the like goods.

158. The TRA analysed the submissions from interested parties to establish whether imports were affecting the prices in the UK market.

159. The TRA analysed import data from one US producing exporter and one US non-producing exporter who exported goods to the UK produced by a number of US producers. The volume of these imports into the UK represented a sufficient level of the goods concerned for the POI to provide a meaningful analysis.

160. The TRA calculated an average undercutting margin covering the PCN and found an undercutting margin of 26.79% during the POI. Table 9 below demonstrates the trend over the POI:

Table 9: Price undercutting analysis between UK and US S-PVC (indexed to US 2020 average unit price)

	2020	2021	2022	2023
	Year one	Year two	Year three	POI
UK average unit price (indexed)	102	178	221	146
US average unit price (indexed)	100	173	202	123

Source: HMRC Import Statistics, Questionnaire responses

161. Table 9 demonstrates the undercutting of the goods concerned from the US, Figures 2 and 3 below also provide a pictorial view of US prices over the IP comparing it to other importing countries as well as the UK.

162. US undercutting has been present in the IP and became more significant in 2022 and the POI (2023).

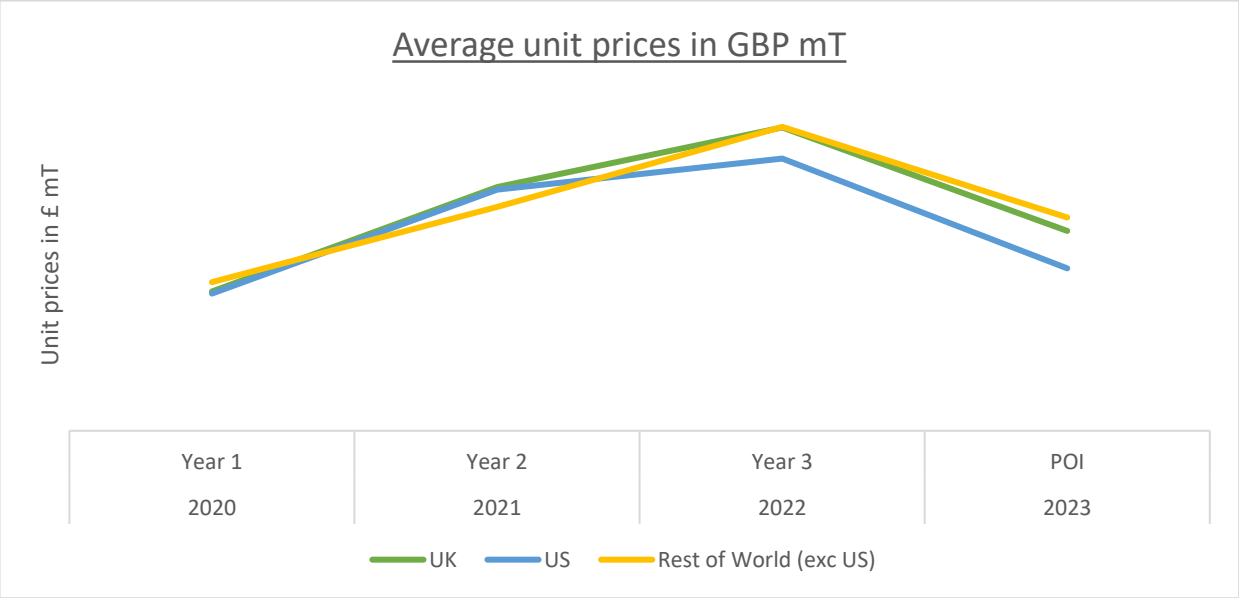
H2.2.2 Price depression

163. Price depression occurs when the UK industry is forced to reduce its prices to compete against lower priced dumped goods.

164. The TRA compared the average domestic price of the UK industry like goods to the average import price of the goods concerned from the US to establish whether there was price depression during the IP.

165. Analysis of confidential pricing data showed that US unit prices were comparable to UK and Rest of World (RoW) (excluding the US) prices during 2020, 2021 (Figure 2) and the first part of 2022. (which can be seen in Figure 3).

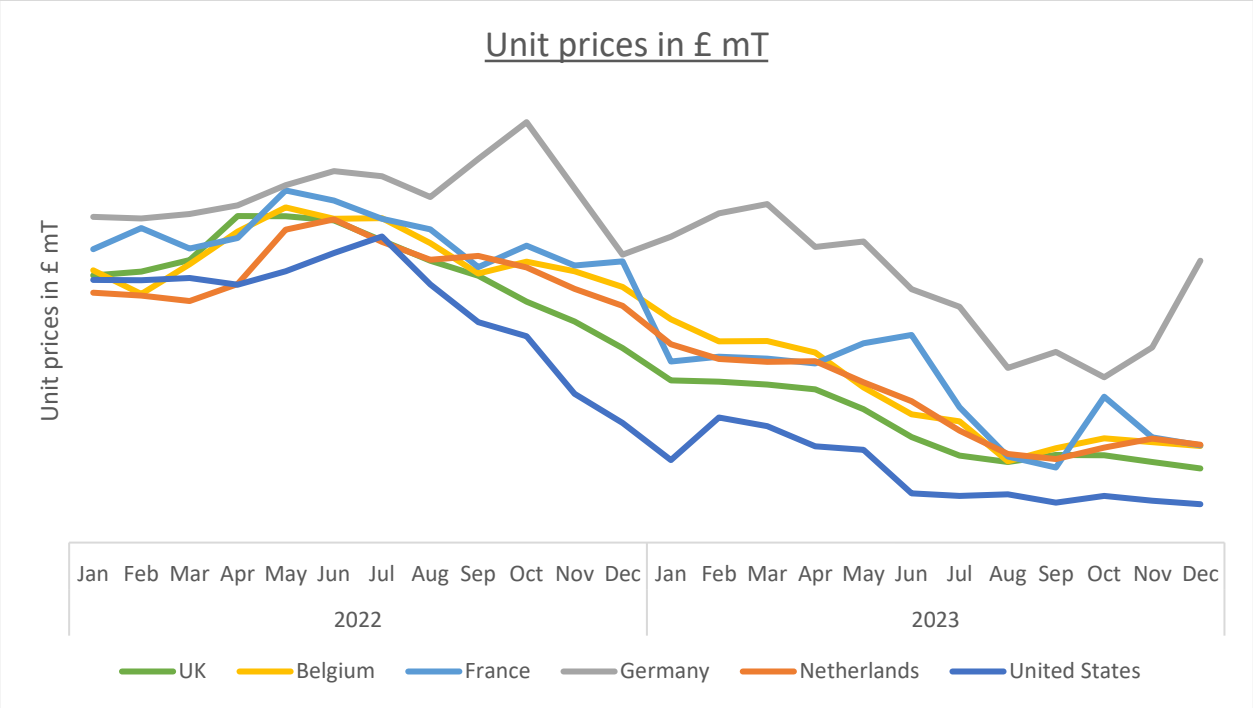
Figure 2: Average unit prices in GBP per mT over the IP.



Source: HMRC Import Statistics and confidential questionnaire data

166. From the start of 2022 US unit prices rose at a slower rate than UK and RoW prices, but from July 2022, US prices were decreasing at a much greater rate when compared to the unit prices of UK and RoW. The latter part of 2022 and beginning of 2023 saw the difference in unit price increasing. The Applicant has stated that this led to them reducing sales prices in order to retain sales.

***Figure 3**: Top 5 importers to the UK (exc. Mexico) and UK producer average monthly unit prices in GBP per mT over 2022 and 2023.*



Source: HMRC confidential data and confidential questionnaire data

167. We compared the average domestic price of the UK produced like goods to the average import price of the goods concerned from the US, as well as the top five third countries who export S-PVC to the UK, to establish whether there was price depression during the IP, and if this price depression was caused by US imports or another source.

Table 10: Average import price from the top 6 countries including the US and average UK Industry sales price, indexed to US 2020 prices				
	2020	2021	2022	2023
	Year one	Year two	Year three	POI
US	100	173	202	123
Netherlands	106	159	219	154
Germany	146	187	239	189
Belgium	114	186	236	176
Mexico	101	138	201	131
France	107	173	234	155
UK	102	178	221	146

Source: HMRC Import Statistics, Confidential questionnaire responses

168. Confidential data indicates that imports from Mexico include a significant number of sales to an associated UK company and, therefore, the average prices in Table 10 are not necessarily reflective of a market price.

169. Table 10 shows that the US unit prices were below UK unit prices throughout the IP. Of the remaining top importing countries, the Netherlands had a lower average unit price when compared to the US in 2021. However, imports from the US were the lowest average prices per unit for 2020, 2022 and 2023.

170. Table 10 shows that the average prices of the goods concerned from the US increased over the IP by a lower percentage than the like goods imported from other countries. US prices also decreased by the largest percentage of any of the top 6 importing countries from July 2022 to the end of 2023 (see figure 3), undercutting all other imports and the UK producer.

171. When taken into consideration alongside the increased volume of US imports, it appears that the UK industry is facing downward price pressure (price depression) from the dumped goods concerned, forcing it to reduce prices to levels that it claims are unsustainable for its business operations. Price depression was more significant

in 2022 and 2023 with a 19% point difference in 2022 and a 23% point difference in 2023 (POI).

H2.2.3 Price suppression

172. Price suppression occurs where price increases for the like goods, which otherwise would have occurred, have been prevented to a significant degree due to the price of the goods concerned.

173. To assess whether there was any evidence of price suppression, the TRA examined changes to domestic sales prices and changes to the cost of production for the like goods produced in the UK during the IP.

174. Confidential cost of production data showed that during the IP the UK producer was able to increase prices in line with the increased costs in 2022, however due to the reduction in prices that can be seen mid-year in 2022 (see figure 3) , the UK producer was forced to lower prices in order to compete with the decreasing price of US dumped imports which were entering the UK in increasing volume.

175. During the POI some downward effects on energy pricing allowed the UK producer to lower prices, but it was still not able to lower prices to compete with US dumped imports, as Figure 3 demonstrates.

176. The TRA reviewed confidential data from the UK producer which indicated that there was pressure in the market to reduce pricing to US levels in order to compete and retain the customer base.

H2.3. Impact of dumped goods concerned on UK industry during the injury period

177. In considering, for the purpose of regulations 30(2)(c) and 33, the impact of the dumped goods on the UK industry, the TRA must take into account all relevant economic factors and indices having a bearing on the UK industry including:

- actual and potential decline in sales, profits, output, market share, productivity, return on investments, and utilisation of capacity
- factors affecting domestic prices of the like goods
- the magnitude of the margin of dumping
- actual and potential negative effects on cash flow, inventories, employment, wages, growth, the ability to raise capital or investments

H2.3.1 UK industry sales

178. To assess whether the UK industry has been injured or is being injured, we assessed whether there has been a decline in both the volume and value of domestic sales of the UK like goods. A decline in domestic sales may be an indicator that the UK industry is suffering injury.

Table 11: UK Domestic sales

	2020	2021	2022	2023
	Year one	Year two	Year three	POI
Value (indexed)	100	210	163	94
Volume (indexed)	100	120	75	65

Source: Questionnaire responses

179. Table 11 shows the trend in the UK industry's sales figures from the Applicant's submission. There had been an upwards trend in the UK industry sales volume during the initial stages of the IP, following recovery from the Covid 19 year of 2020, which was heavily impacted with lower sales due to downstream industry shutdowns and lack of demand from the building sector, a larger buyer of S-PVC. The second year, 2021 saw demand increase as business sectors moved out of lock downs from COVID-19 but it also coincided with S-PVC prices nearly doubling in the period as demand soared.

180. Sales by volume and value fell significantly in years three and four. With year four (POI) value of sales being 6% below 2020 levels, and volume sales being 35% below 2020 levels.

H2.3.2 Profitability

181. To assess whether the UK industry has been injured or is being injured, we assessed whether there has been a decline in profit during the IP.

Table 12: UK industry net profit margin

	2020	2021	2022	2023
	Year one	Year two	Year three	POI
Profitability of "Like Goods" (indexed)	100	227	231	89

Source: Questionnaire responses

182. Table 12 shows a significant reduction in the profit margin of the UK industry from 2022 to 2023 (the POI), and a reduction when compared with the rest of the IP. The Applicant explained in the application that UK industry aim for a 15% net profit year-on-year. This level is necessary due to the industry being heavily investment driven, with significant financial resources spent on research and development, and keeping up to date with increasing regulatory and environmental restrictions.

183. The UK industry have had to reduce prices to maintain their presence in the UK market as they bid with competition from the dumped US prices. This may become unsustainable for the UK industry in the long term if it continues. The decline in profits during the IP is an indicator of injury suffered by the UK industry.

H2.3.3 Output and capacity utilisation

184. To assess whether the UK industry has been injured or is being injured, the TRA assessed whether there has been a decline in output and use of production capacity during the IP. A decline in these economic factors may indicate that the UK industry is suffering injury.

185. Output is measured by the volume of like goods produced by the UK industry during the IP. Capacity utilisation is calculated by looking at output relative to capacity. Capacity utilisation allows us to understand whether the UK industry is using its full capacity to produce the like goods during that period.

Table 13: Indexed UK industry output, capacity and capacity utilisation

	2020	2021	2022	2023
	Year one	Year two	Year three	POI
Maximum capacity (indexed)	100	100	100	100
Output (indexed)	100	103	66	60
Capacity utilisation (indexed)	100	103	66	60

Source: Questionnaire responses

186. The UK industry is not in a position to supply 100% of UK consumption and the UK market relies upon imports to meet the remainder of demand. Table 13 shows the UK industry production capacity has remained static over the IP. However, output and capacity utilisation declined during the same period to below 2020 levels. Output saw a decline of 40% and capacity utilisation a similar fall of 40% from 2020 to 2023. While UK consumption of S-PVC decreased from 2022 into 2023, consumption

remained 2% above the 2020 level. However, for UK industry output and capacity utilisation was at 60% of 2020 levels.

187. The UK industry requires high production utilisation to remain viably profitable. If this current trend continues, the UK industry is in danger of not reaching a viable profitability level to re-invest.

H2.3.4 Market Share

188. Market share is calculated by dividing the specific sales volumes by the total UK consumption figures:

Table 14 Indexed UK market share of top six importers and the UK

	2020	2021	2022	2023
	Year One	Year two	Year three	POI
Market Share of UK producers	100	96	64	64
Market Share of US imports	100	109	154	229
Market Share of Netherlands imports	100	89	124	130
Market Share of German imports	100	123	156	126
Market Share of Belgium imports	100	84	112	82
Market Share of Mexican imports	100	77	96	109
Market Share of French imports	100	108	124	150

Source: HMRC Import Statistics, Confidential Questionnaire responses

189. Table 14 shows the market share of S-PVC split at a country level. Despite a reduction in demand for S-PVC after 2021 in the UK market, UK producers saw a greater loss in market share, which was filled by increased market share from US, Mexican, French, and Netherlands imports.

190. During the IP, imports from the US have increased in volume from the baseline in 2020 by 134% in 2023 (see Table 6). US market share increased overall, despite events such as the shipping crisis which led to higher ocean freight costs and delays in shipping goods via sea routes, affecting supply via ocean freight such as US and RoW product.

191. The effect of the increased US volumes in imports, is that they increased their market share in 2023 by 129% over the 2020 level, while UK industry lost 36% of market share in the same period. During this period Mexico, France, Germany, and the Netherlands increased their market share at a far lower rate than the US (between 9-50%).

H2.3.5 Productivity and employment

192. To assess whether UK industry is suffering injury, we assessed whether there has been a decline in employment and productivity during the IP. A decline in these factors may indicate the UK industry has suffered or is suffering injury.

193. We assessed employment trends by analysing how the number of employees in the UK industry has changed throughout the IP. Productivity is measured by establishing the output. In this instance the UK industry used metric tonnes per employee during the IP. The number of employees includes employees working on the production of like goods and employees working in operational and administrative roles linked to the production of like goods.

194. Table 15 provides figures of the UK industry's employment and productivity throughout the IP.

Table 15: Productivity and employment				
	2020	2021	2022	2023
	Year one	Year two	Year three	POI
Employee numbers (Indexed)	100	98	97	99
Productivity (Indexed)	100	105	68	60

Source: Questionnaire responses

195. Over the IP the UK industry employment level was reasonably static, and only saw a slight decrease in the number of employees working on or connected to the production of S-PVC, with employment in the POI being at 99% of 2020 levels.

196. However, as explained in H2.3.3. capacity for the UK industry remained static for the IP. Therefore, with a decline in demand of UK produced S-PVC from 2021 productivity fell during 2022 and the POI of 2023.

197. Productivity levels have dropped 40% in the period. The largest drop occurring in 2022, which coincided with a significant drop in UK consumption of S-PVC. In the same period 2022, UK industry saw a loss of market share, while US imports gained market share.

H2.3.6 Effect on wages

198. Table 16 provides the median wage of the UK industry. The average wage remained stable throughout the IP, but in real terms fell as it did not increase with inflation, noting that inflation in the UK in 2022 rose to 11.1% briefly before falling to 4.2% in 2023.

Table 16: UK industry wages				
	2020	2021	2022	2023
	Year one	Year two	Year three	POI
Median average wage (Indexed)	100	99	104	101

Source: Questionnaire responses

H2.3.7 Investments, Return on investments and Cash Flow

199. To assess whether UK industry is suffering injury, we assessed whether there has been a decline in investments, decline in return on investments (ROI) and decline in cash flow during the IP.

200. ROI measures business performance and earnings arising from investments. Cash flows and cash flow forecasts give us an overview of a business's capability to invest, maintain operations and grow. A decline in these factors may indicate the UK industry has suffered or is suffering injury.

Table 17: UK industry return on investments and cash flows				
	2020	2021	2022	2023
	Year one	Year two	Year three	POI
Investments (Indexed)	100	155	160	163
Cash Flow (Indexed)	100	504	360	63
Return on investments (Indexed)	100	455	321	68

Source: Questionnaire responses

201. Investments show increased spending through the IP and POI, but this is largely due to replacement of assets at end of life, environmental investments and Health and Safety investments to be able to continue to operate. There has been no investment for increasing capacity.

202. The UK industry state that a drop in profitability in 2023 has affected their ability to invest (see H2.3.2.). Planned investments for 2024 have not gone ahead, with only investments required to maintain regulatory / licencing requirements being prioritised. The decrease in investments in 2023 and beyond coincides with the drop in profits in 2023.

203. Return on investments trend is more severe, increasing in 2021 before decreasing to below 2020 levels in 2023. Cash flow did increase initially in 2021 following a significant increase in sales following the 2020 COVID year but also fell to below 2020 levels in 2023.

204. Although these three indicators fluctuate, the trend in return on investments is a stronger indicator of injury to the UK industry, coinciding with the price pressures from dumped US S-PVC in the later part of 2022 through to 2023 and the fall in sales. This has significant negative implications for an industry that is heavily investment driven.

H2.3.8 Inventories

205. To assess whether the UK industry is suffering from injury, we assessed whether there has been a change to inventory levels that may indicate the UK industry has suffered or is suffering injury.

Table 18: UK industry inventory

	2020	2021	2022	2023
	Year one	Year two	Year three	POI
Closing stock (Indexed)	100	115	95	91

Source: Confidential Questionnaire responses

206. The UK industry assess their stock levels in terms of volume and inventory days. Table 18 shows a decline in stock levels of 9% across the IP. In the same time period production volumes also fell. This was in response to a slower turnover of sales as the period progressed, which could be linked to the increasing difficulty of the UK

industry in selling its products within the UK market due to the lower price of US imports. It must be noted that a large proportion of S-PVC goods are made to order based on expected sales rates from contracts. However, a certain proportion of production will be made in anticipation of demand through additional sales.

H2.3.9 Growth

207. The TRA considered the UK industry's market share, production, sales and employment figures for the IP and POI. The trend for these factors are shown in Table 19.

Table 19: UK industry growth factors

	2020	2021	2022	2023
	Year one	Year two	Year three	POI
UK consumption of S-PVC (Indexed)	100	126	117	102
UK industry domestic sales volume (Indexed)	100	120	75	65
UK market share (Indexed)	100	96	64	64
UK production (Indexed)	100	103	66	60
Employment (Indexed)	100	98	97	99

Source: HMRC data, confidential questionnaire data

208. We measured growth by comparing trends in total UK consumption of S-PVC with the UK industry domestic sales, UK industry's market share, production, and employment figures.

209. The UK S-PVC consumption has increased over the IP. The UK industry employment remained close to 2020 levels with a 1% reduction by the POI. It therefore didn't follow UK consumption.

210. The UK industry's market share and production have declined over the IP. The increased consumption in the UK has not benefited the UK industry with regard to their market share.

211. Similarly, although UK industry's domestic sales volume did grow from 2020 to 2021, reductions in sales volumes did not match consumption over the rest of the IP, with production being down to 60% of 2020 levels in the POI, while consumption was at 102% of 2020 levels.

212. The UK industry did not grow as expected when comparing it to UK consumption over the IP.

H2.3.10 Magnitude of the margin of dumping

213. Table 5 above demonstrates that the dumping margin was significant, with a range of 38.43% to 56.01%. When considered with the increased volume of imports from the US of the goods concerned, as shown in Table 6, the dumped US S-PVC is likely to be having an effect on UK industry, as the US goods have been able to enter the UK market in both volume and at a reduced price.

H2.3.11 Factors affecting domestic price of the like goods

214. The TRA has assessed factors affecting domestic prices in **Section H2.2.1 Price undercutting**, **H2.2.2 Price depression** and **H2.2.3 Price Suppression** above and concluded that there has been significant price undercutting, as well as price depression and suppression in 2022 and 2023 by the goods concerned.

H2.4. Other factors considered relevant

215. In accordance with regulation 30(2)(d), the TRA does not consider there to be any other relevant factors.

H3. Conclusion on UK industry

216. The TRA has assessed the factors affecting volumes from **H2.1 Volume of dumped goods** and concluded that volume of dumped goods has been increasing over the IP and POI, and that there has been a significant impact on UK industry with decreased production and decreased sales volume during the IP and POI.

217. The TRA has assessed factors affecting domestic prices in **Section H2.2 Effect of dumped goods concerned on prices** above and concluded that there has been significant impact on the UK industry in the IP and POI.

218. We have identified significant signs of injury when examining the injury factors above, including loss of market share, factors affecting price of the like goods, reduced profitability, lower return on investments, reduced output, reduced capacity utilisation and productivity.

219. The above evidence indicates that the UK industry is suffering material injury. The TRA therefore determined that it was not necessary to investigate whether there is also a threat of material injury to the UK industry.

H4. Causation and non-attribution

220. In accordance with regulation 35 of the Regulations, injury caused by other known factors must not be attributed to dumped imports of the goods concerned. The TRA considered whether any other known factors, other than the dumped goods, caused or are causing injury to the UK industry.

221. The TRA considered the following:

    a) Volume of third country imports and prices

    b) Changes in the pattern of consumption of the like goods in the UK

222. The TRA received on 22 March 2024 a submission from Oxy, which raised a concern that if any material injury exists, US imports are not the cause. The TRA addresses the causation and non-attribution arguments raised by Oxy below.

H4.1. Volume and the prices of imports from third countries into the United Kingdom

223. Imports from third countries to the UK were examined to ascertain whether they break the causal link between the dumped goods from the US and injury to the UK industry. Table 20 focuses on the six largest importing countries into the UK which were the US, Netherlands, Mexico, Belgium, Germany, and France.

224. Confidential data from HMRC was analysed with regards to country of origin for 2021 through to 2023 imports. This evidenced that significant volumes of like goods manufactured in Germany and France are dispatched from Belgium, and this is not reflected in the HMRC publicly available import statistics. There were minimal imports flowing through EU countries that included a US country of origin, throughout the IP (see paragraph 141).

Table 20: Top 6 countries with largest import volume into the UK indexed to 2020

	2020	2021	2022	2023
	Year one	Year two	Year three	POI
US	100	137	180	234
Netherlands	100	112	145	133
Mexico	100	97	113	110
Belgium	100	106	131	83
Germany	100	155	183	128
France	100	136	145	153

Source: HMRC Import Statistics, confidential country of origin data and confidential questionnaire data

225. Table 20 outlines the six countries with the highest volume of S-PVC imported to the UK. The Netherlands remained the largest importer into the UK over the IP. The US

rose to become the second largest importer by 2023, from being the fifth largest in 2020. While US exports rose consistently over the IP, the remainder of the top six nations' exports to the UK were comparatively weaker with Belgium decreasing by 17%. The remaining four countries increased their exports by between 10% - 53%, compared to a 134% increase in US imports.

226. The level of imports by volume from the Netherlands, Mexico, Belgium, and Germany decreased during the POI compared to 2022, whilst France increased by 8% points. It is therefore unlikely these third country imports caused the injury felt by the UK industry.

227. UK consumption of S-PVC fell 15% points in 2023 from 2022, however US imports by volume increased by 54% points over the 2022 level.

Table 21: Average import unit price of top six largest import countries and the UK (Indexed)

	2020	2021	2022	2023
	Year one	Year two	Year three	POI
US	100	173	202	123
Netherlands	100	150	208	146
Germany	100	127	163	129
Belgium	100	164	208	155
Mexico	100	137	200	130
France	100	163	220	145
UK	100	175	218	144

Source: HMRC Import Statistics and questionnaire data

228. Table 21 shows the indexed average unit price of S-PVC as it enters the UK. While the Netherlands was the largest exporter during the whole IP (by volume) their average price per unit of S-PVC was comparable to UK average unit prices. However, US pricing saw a material fall from the middle of 2022 and through the POI, compared not only to UK prices but also that of third country imports (see Table 10).

This coincided with the US becoming the second largest importer into the UK by volume.

229. The data in Table 20 shows that volumes for third countries during the POI decreased from 2022 (apart from France which increased by 8% points), while US volumes increased. At the same time, Table 21 shows US prices fell 79% points which was relatively more than third countries.

230. The TRA has concluded that the movement in volumes and prices for third countries does not break the causal link with the US.

H4.2. Changes in the pattern of consumption of the like goods in the UK

231. The UK left the EU on 31 January 2020 and entered a transition period until 31 December 2020. The UK producer of S-PVC does not consider that the UK leaving the EU has caused a contraction in demand for S-PVC or change in the pattern of consumption.

232. The EU exit was only raised by Resintech in the questionnaire process. Resintech claimed that “significant changes in trade regulations, tariffs, and market dynamics resulting from the UK’s withdrawal from the European Union had a profound impact on the competitiveness and viability of the domestic industry”.

233. The TRA reviewed this but did not find any evidence to indicate that a contraction in the UK S-PVC market was caused by the EU exit. In fact, UK consumption of S-PVC increased over the IP, and while the initial increase in consumption slowed in 2022 and 2023, this reduction was due to a reduction in demand from the various sectors of downstream industry that buy S-PVC goods, most notably construction and automotive who have seen reduced sales.

234. The COVID-19 pandemic that arose in early 2020 and the subsequent lockdown periods enforced by the UK government (from March 2020) caused a reduction in

consumption of S-PVC within the UK during this period. Due to country wide imposed restrictions a large part of the UK building trade was not operating during 2020 which had a significant impact on demand for S-PVC. Other industries were affected by reduced demand as the UK economy was not operating at full capacity and the introduction of workplace distancing in some sectors reduced production.

235. While consumption of S-PVC was lower, the UK production industry of S-PVC was seen as nationally important, and key worker status was given to S-PVC production and UK production continued. Lower sales affected profitability for the UK producer in this period. This position however turned around for the following year 2021.

236. In the following year of 2021 demand for S-PVC was led by the building sector as it recovered from shutdowns and demand increased. Consumption in the UK rose significantly during 2021, with a 26% increase over 2020, at a time when UK production and sales also increased for the UK producer. This period of 2021 was immediately after the time the UK left the EU. It is therefore unlikely with the increased production and sales that the UK leaving the EU was a cause of injury for the UK producer.

237. February 2022 saw the invasion of Ukraine. The impact of this on European markets led to higher energy prices and brought about an inflationary effect on many products in most markets. For the UK S-PVC industry this meant an increase in the cost of manufacturing as the product is energy intensive to produce. The UK S-PVC industry was able to increase unit prices at the beginning of 2022, and figures 2 and 3 show how all countries increased prices over this period. However, with downward price pressure from US imports in the later part of 2022 and 2023 this pulled domestic prices down.

238. Inflation and subsequent interest rate increases from 2022 reduced growth in the housing market / building sector, which had a knock on effect to demand of S-PVC. UK automotive industry saw a reduction in consumer demand for end products as

consumer spending reduced. Other industries using S-PVC saw a reduction in demand which caused a contraction in the UK S-PVC market. Although a contraction occurred in the UK market over 2021 levels, demand remained 2% above 2020 levels in 2023, but it was UK industry that saw a greater reduction in demand over the IP when compared to other countries imports.

239. Comparing the UK industry sales volume to the drop in consumption (measured by volume) from 2021 to 2023 of 24% points, UK industry sales (see table 11), dropped by a much larger proportion, of 55% points in 2023, at a time when US S-PVC increased import volume by 97% points (2021 to 2023). Therefore, the evidence indicates that while there has been some effect on UK industry due to the reduced demand for S-PVC from several factors (including COVID-19, overall change in demand in the market, interest rates, and inflation) the significant cause of injury has been the dumped goods from the US that have injured the UK industry with price suppression and undercutting.

240. Having considered the other known factors that could be causing the injury, including imports from third countries, interest rate increases, inflation, COVID and the EU Exit, we did not find sufficient evidence to break the causal link between the goods concerned and the injury identified.

241. Having regard to all the available information, we have not identified any additional factors that we deem relevant for the injury analysis.

H4.3. Conclusion

242. After an assessment of 15 injury factors, we have concluded that the UK S-PVC industry has suffered injury caused by the increased volume of dumped goods originating from the US.

243. We have identified a significant increase in dumped goods from the US which has coincided with a deterioration in various injury factors including loss of market share, price depression, price undercutting, reduced profitability, lower return on investments, reduced output utilisation and productivity.

244. Other known factors including third country imports and prices have been assessed and it has been concluded that the evidence does not suggest a break to the causal link due to the combined effect of significant increased volume and low average dumped unit price of the US S-PVC during the POI.

245. The TRA therefore concluded that UK industry suffered injury during the IP within the meaning of paragraph 5(1) of Schedule 4 to the Act. Substantial undercutting by imports of the goods concerned originating in the US, combined with a surge in import volumes, has been evidenced to be a significant cause of the injury suffered by the UK industry.

246. The application alleged that UK industry was suffering material injury but also claimed that there was a threat of material injury. Given the conclusion above that material injury is being suffered a decision was reached that it was not necessary to give any further consideration at this stage to the allegation of *threat* of material injury.

H5. Injury margin

247. The injury margin is the extent at which the UK industry is being injured. The default method is to base the injury margin for each exporter on its underselling margin. This is calculated by comparing a benchmark UK price (the target price) with the import price (the landed price). The target price is the price that a UK producer would expect to sell its like goods at if it were not being affected by the dumped goods. This method was used to calculate an injury margin for the cooperating US producing exporter.

248. We also calculated an injury margin for all non-cooperative US producing exporters. This is known as the residual margin.

H5.1. Target price

249. The target price is the price that a UK producer would expect to sell its like goods at if it were not being affected by the dumped goods.

250. We calculated the target price by using the UK industry cost of production for the like goods, adding their AS&G costs, and applying a normal rate of profit. The normal rate of profit was set at between 10-15% (confidential profit margin) in this instance, which was based on historical data from the UK Industry and what the TRA believe is expected by the S-PVC industry under normal competition. This profit margin is higher than might be expected for other industries due to the high-investment nature of the goods and the need to invest in research and development to ensure the business is competitive as it also transitions to net zero carbon in 2050 to meet UK legislation, and targets.

H5.2. Landed price

251. The landed price is the price of the goods concerned as they enter the UK port. It equates to the CIF import price plus any relevant import duties and other costs associated with import.

252. We calculated the landed price by using the verified exporter's CIF UK export price. The CIF value was provided in USD and converted to GBP, and we have used the Bank of England monthly exchange rate to convert the price to GBP.

H5.3. Residual injury margin

253. Regulation 38(3) of the Regulations states that the TRA may determine the residual amount using any reasonable means.

254. In line with regulation 38(4) of the Regulations we determined the residual margin taking into account information contained in the UK producer's and US producing exporter's questionnaires.

255. The residual injury margin has been set using the same methodology as for the residual dumping margin, by selecting the highest injury margin established using data, in a given month of the POI, between two production sites, which in this instance was the injury margin in the month of December 2023, when the injury margin was 74.64%.

H5.4. Injury margins

256. Using the approach and data detailed above, the TRA determined the following margins outlined in Table 22.

Table 22 : Injury margins

US exporting producer	Injury margin (%)
Formosa Plastics Corporation, USA	55.50
All other US exporting producers (residual injury margin)	74.64

Section I: Lesser duty rule, registration of imports and forms of measures

I1. Lesser Duty Rule

257. The TRA calculated anti-dumping amounts and injury margins for FPC USA, and for all other US producing exporters, it calculated a residual rate. In accordance with paragraph 18(7) of Schedule 4 to the Act, and regulation 36 of the Regulations, the recommended additional amount of import duty should be set at a level that does not exceed the anti-dumping amount, in relation to the goods as determined by the TRA as part of its final affirmative determination, or the amount which the TRA is satisfied would be adequate to remove the injury to the UK industry in the goods if that amount is less than the anti-dumping amount.

258. Table 23 provides the comparison of the dumping and injury margins, and the implementation of the lesser duty rule to arrive at a recommended anti-dumping amount that is the lesser amount.

Table 23: Recommended anti-dumping amount

US producer	Dumping Amount	Injury Amount	Anti-dumping amount
Formosa Plastics Corporation, USA	38.43%	55.50%	38.43%
All other US producers (residual amount)	56.01%	74.64%	56.01%

I2. Registration of Imports

259. Following the registration of imports as detailed in **Section C5: Registration of imports**, the TRA received import data regarding the goods concerned from HMRC for the period July to end of October 2024.

260. The data collated is confidential in nature, however table 24 below provides a non-confidential summary of the data based on publicly available 8-digit HMRC data. November and December 2024 data was not available at the point of publication.

Table 24: HMRC import data of US S-PVC for 2024, compared to 2023

	Jan	Feb	Mar	Apr	May	Jun
2023 US monthly import volume (mT)	4,886	3,887	3,609	4,045	3,349	6,185
2024 US monthly import volume (mT)	2,386	2,984	3,211	3,680	3,040	1,987
	Jul	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
2023 US monthly import volume (mT)	3,993	2,380	4,229	4,125	3,046	2,180
2024 US monthly import volume (mT)	2,118	2,988	2,735	876	not available	not available

Source: HMRC Import Statistics

261. A review of the trends from the confidential 10-digit data shows that from July 2024 when the registration took effect, the level of imports from the US to the UK did not increase beyond the normal range of monthly imports seen in 2023.

262. Although August 2024 import data is higher than the same month in 2023 (approximately 25% higher), it is still lower than the average monthly imports for

2023. Imports in July, September and October were below the level for the same period in 2023.

263. Data provided following the registration of imports has shown that no surge in imports has occurred up to the publication of the PAD in November 2024. The conditions set out in regulation 91 of the Regulations, governing the power of the TRA to recommend that application of an additional amount of import duty be backdated to a date before the beginning of the period of the provisional remedy, are not met.

264. The TRA therefore determines that there are no grounds in this instance to recommend to the Secretary of State any backdating of an import duty, beyond the date the provisional measures came into force.

I3. Forms of Measure

265. The TRA has considered a number of options in respect of an S-PVC proposed measure and concluded that it should take the form of an ad-valorem duty, at the rates outlined in Table 23.

Section J: Economic Interest Test

J1. Introduction

266. The aim of the Economic Interest Test (EIT) is to determine whether applying an anti-dumping amount on the goods concerned, imported from the US is in the wider economic interest of the UK. This test is presumed to be met unless we are satisfied that the application of the remedy is not in the economic interest of the UK.

267. In accordance with paragraph 25 of Schedule 4 to the Act, the EIT is met in relation to the application of an anti-dumping remedy if the application of the remedy is in the economic interest of the United Kingdom.

268. In line with paragraph 25 of Schedule 4 to the Act, the TRA has taken account of the following factors in conducting the EIT:

- the injury caused by dumping of the goods to the UK industry in the like goods and the benefits to that UK industry in removing that injury
- the economic significance of affected industries and consumers in the UK
- the likely impact on affected industries and consumers in the UK
- the likely impact on particular geographic areas, or particular groups, in the UK
- the likely consequences for the competitive environment, and for the structure of markets for like goods, in the UK
- other matters that we consider relevant

J2. Supply Chain

269. An overview of the supply chain including upstream activities, UK producers, importers and downstream businesses is provided in **Section F: The UK industry and market**.

J3. Evidence Base

270. In addition to questionnaire responses received, the TRA also received eight responses from the downstream business survey which contained information relevant to the EIT.

271. The TRA has supplemented these with evidence from background research and collated additional information from UK government data sources such as ONS, and recognised market data providers such as Dun and Bradstreet. The TRA has also conducted research relating to parties that have not participated in this investigation.

272. The sections that follow assess each of the factors of the EIT.

J4. Injury caused by dumping and benefits to UK industry in removing injury

273. The TRA found that the UK industry has been suffering injury as a result of the dumped goods from the US.

274. An assessment of the 15 injury factors revealed that the sharp rise in volume of imports of S-PVC from the US coincided with a decline in the UK industry. Several indicators including profits, sales, market share, productivity, capacity utilisation and return on investments, showed negative trends during the injury period. Furthermore, we identified evidence of price undercutting (with an average margin

of 26.79%), underselling and increasing import volumes during the POI, as contributing to price depression in the UK industry. The injury assessment concluded that there would be further injury to the UK industry were a measure not imposed.

J5. Economic significance of affected industries and consumers in the UK

275. This section sets out the relative size and significance of the affected industry and consumers within the UK S-PVC supply chain. From the available evidence, the TRA identified the following groups to be potentially affected by the proposed measure:

- **Upstream businesses:** primarily suppliers of raw materials to produce S-PVC
- **UK producer** of S-PVC
- **Importers** of S-PVC
- **Downstream businesses:** manufacturers that use S-PVC as an input in the production of end goods

276. It should be noted that we observed an overlap between the importer and downstream groups (for instance, some downstream businesses are also importers of S-PVC). To avoid double counting, we have grouped these businesses based on their principal activity.

J5.1. Upstream businesses

277. We did not receive any submissions from upstream businesses, but from the UK producer questionnaire response, we sampled six such businesses based in the UK. These businesses supply raw materials used in the production of S-PVC, accounting for about 50% of the value of the producer's purchases of raw materials.

278. Our analysis of the available evidence suggests that less than 1% of the turnover of these upstream businesses is accounted for by sales to the UK producer. Overall, S-PVC is **Not Important** for these businesses.

279. The selected businesses employ around 800 staff, with a combined annual turnover of approximately £820m and an estimated Gross Value Added (GVA) of £109m per year. Overall, the companies show low to moderate vulnerability to economic shocks, though those with fluctuating sales or declining profits may be more vulnerable.

J5.2. UK Producers

280. There is only one known producer of S-PVC in the UK. This producer submitted a questionnaire response.

281. From the information obtained via questionnaire responses, the UK producer employed between 150 and 220 staff who are directly involved in S-PVC production. Based on the four most recent published accounts, the business generated an average annual turnover of £412m across all its operations. We estimate their GVA, a measure of their total economic contribution, to be £197m, with an estimated Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA) of about £141m. During the POI, the UK producer experienced a sharp decline in both growth and profitability, highlighting their vulnerability to economic shocks. Furthermore, the available evidence suggests that S-PVC is **Very Important** to the UK producer, contributing a significant percentage to the company's annual turnover.

J5.3. Importers

282. Importers play an important role in supplying S-PVC to meet the UK’s demand for the product. Although we received an abridged questionnaire response from an importer/downstream user which was submitted on 9 October 2024, we were unable to verify all of the submitted data in time for this report. However, we have noted that

the comments in the questionnaire are largely consistent with the findings of our downstream business survey.

283. From our research, we are aware of 156 businesses which import S-PVC into the UK. We selected 14 businesses that were frequent importers (at least one transaction each month during our POI) of the product under the 8-digit commodity code, 39041000, for which data was available.

284. The four most recently published accounts for the 14 selected businesses revealed that they employed about 7,000 staff across the UK, with a combined turnover of approximately £1.5bn. We estimate their combined GVA to be £442m. The evidence suggests that S-PVC is **Somewhat Important** to the sampled businesses. Furthermore, more than half of these businesses appear resilient to economic shocks, as they exhibited strong growth and stable profits.

J5.4. Downstream businesses

285. We identified 33 downstream businesses and selected seven of the major purchasers of S-PVC from the UK producer. These businesses employed about 5,300 people and their combined turnover was approximately £1.1bn, according to their four most recently published accounts. For the same period, we estimate their combined GVA was about £332m.

286. While we did not receive questionnaire responses from UK downstream businesses, we conducted a survey of the known downstream businesses using Qualtrics and received eight complete responses after excluding incomplete and duplicate entries. According to the responses received, S-PVC is used as an input in the manufacturing of products in industries such as automotive, construction and healthcare medical packaging. The results showed that although respondents purchase a large percentage of their S-PVC from the UK, they also import the product from other countries.

287. The evidence from our analysis shows that S-PVC is **Somewhat Important** to the downstream group. While two of the selected businesses showed low turnover and profits, the remaining five are unlikely to be vulnerable to negative economic impacts as they demonstrated strong growth in turnover and profitability.

J5.5. Consumers

288. S-PVC is not an end-consumer good; instead, it serves as a key input in the manufacturing of goods that are eventually purchased by consumers. As such, final consumers have not been included in our economic significance analysis or impacts analysis.

J5.6. Summary

289. Table 25 summarises the evidence on the economic significance for segments of the S-PVC supply chain.

Trade Remedies Authority

Table 25: Summary table for the significance metrics for affected industries

	Upstream businesses	UK producer	Importers	Downstream businesses
Total known businesses	11	1	156	33
Total sampled	6	1	14	7
Estimated importance of S-PVC to this group	Not important (UK producer raw material purchases vs upstream business turnover)	Very important (revenue from S-PVC vs total turnover for the business)	Somewhat important (% of import transactions under the relevant commodity codes)	Somewhat important (S-PVC purchases as % of turnover)
Total employment of selected businesses	809	Between 150 and 220	7,011	5,331
Total GVA of selected businesses (£m)	109	196	442	332
Total turnover of selected businesses (£m)	824	412	1,529	1,094
Average EBITDA margin for selected businesses (%)	6	34	11	12
Vulnerability assessment to economic shocks	Low to medium vulnerability- generally steady growth but fluctuating profits for some businesses.	Medium to high vulnerability-sharp decline in turnover and profits during POI.	Medium vulnerability- generally steady growth, but some businesses with low profits.	Low vulnerability- most businesses with strong growth and stable profits.

Sources: Questionnaire responses, Companies House, and Dun & Bradstreet.

Methodology: The importance of S-PVC to each of the groups was estimated using the comparison metrics set out in brackets for each group. GVA was estimated by summing operating profits, employment costs, depreciation, and amortisation. Average EBITDA margin was estimated by dividing the sum of operating profit, depreciation, and amortisation by turnover. The assessment of vulnerability to negative economic impacts was made by looking at financial data from the most recent four accounts.

J6. Likely impact on affected industries and consumers

290. This section assesses the overall impact a measure might have on affected groups. We approach this by examining how prices and quantities of S-PVC across the supply chain might change under two scenarios: (i) if a new measure is imposed, and (ii) if no measure is imposed. We then consider the possible impacts of any changes in the prices and quantities on the affected stakeholders – UK producers, importers, and downstream businesses.

J6.1. Key assumptions

291. We have assumed that S-PVC is a homogenous product in the UK market, with no differences in quality or other features between the product supplied from different countries. Consequently, competition is based solely on prices and users will switch to the supplier offering the lowest price.

292. Without access to market price data, we estimated prices of S-PVC produced by manufacturers from other countries using the average import price in the UK market. To estimate their market shares, we relied on UK Trade Info import data from HMRC at the 10-digit commodity code level.

293. We estimated the price elasticity of demand for S-PVC to be between -1.2 and -1.6 based on a research paper which suggests that the demand for poly (vinyl chloride), not mixed with any other substances, is relatively sensitive to price changes[1]. This is consistent with the evidence obtained from our business survey.

294. We assumed that the UK producer's marginal costs were equal to the variable costs reported in the questionnaire response. For importers we assumed that their marginal costs correspond to the purchase cost per tonne of S-PVC. These assumptions play a key role in shaping our impact analysis scenarios.

[1] Ghodsi, M., Grübler, J. and Stehrer, R., 2016. Import demand elasticities revisited (No. 132). Wiiw Working Paper

J6.2. Impact on prices and quantities if a measure is not imposed

295. The evidence available suggests that the UK producer for S-PVC is currently experiencing a reduction in their market share and capacity utilisation because of the injury caused by dumped goods from the US. During the injury period, the volume of domestic production declined significantly, and there was evidence of price undercutting and depression resulting from the dumped S-PVC.

296. If a measure is not imposed, dumped goods from the US may continue to displace domestically produced S-PVC. There is a high chance that the price undercutting of dumped goods from the US might continue to cause injury, as well as cause a decrease in the quantities produced by the UK producer, due to their inability to compete with the prices of the dumped goods.

297. To analyse the impacts of the anti-dumping measure, we created a hypothetical baseline **(Scenario A)** in which the current trend continues. In this scenario, without an anti-dumping measure, the UK producer is expected to keep losing market share to imported S-PVC from the US. Although the UK producer may consider lowering prices further to stay competitive, since their current prices are higher than marginal costs, this would result in lower profits or losses which could limit their ability to reinvest in other areas of the business. By comparing this baseline to scenarios where the measure is imposed, we can estimate the possible effects of the anti-dumping measure.

J6.3. Impact on prices and quantities if a measure is imposed

298. Based on the injury and dumping assessments, proposed anti-dumping duties range from 38.43% to 56.01%.

J6.3.1 Scenario B: All producers increase prices by level of measure

299. In this scenario, we assume that if a measure were imposed, prices for S-PVC would increase, regardless of their source, and producers' market share would remain stable. The imposition of a measure would raise the prices of imports from the US, potentially by up to the level of the measure. This scenario assumes that the UK producer and producers from other countries also increase their prices by

the same margin. We believe it is likely that EU producers will raise their prices due to the recent provisional measures imposed by the EU against imported S-PVC from the US. Since EU producers are major suppliers of S-PVC into the UK, we anticipate that prices of S-PVC may increase for the downstream businesses.

J6.3.2 Scenario C: US producers cannot compete with the new prices, and they exit the market

300. This scenario assumes that if a measure were imposed, UK and rest of the world producers will not increase their prices. As a result, US producers will lose their market share as they may be unable to compete with lower S-PVC prices in the UK market. If US producers pass on the full cost of the measure to importers, it may lead to their exit from the UK market, as importers could choose to switch to cheaper suppliers of S-PVC.

301. Table 26 below shows a summary of the scenarios considered in the impacts analysis.

Table 26: Summary of scenarios used in the impacts analysis	
Scenario where there is no measure in place	
Scenario A	UK producer continues to lose market share as they cannot compete with import prices of S-PVC from the US.
Scenarios where a new measure is in place	
Scenario B	All producers increase their prices by the level of the measure
Scenario C	Only US producers increase their prices by the level of the measure

J6.4. Estimated welfare impacts of a measure on affected UK industries

302. Table 27 shows the estimated welfare impact ranges for each of the modelled scenarios. The impacts on different groups are explained in the following section.

Table 27: Estimated welfare impact ranges				
Scenario	**UK Producer**	**Importers**	**Downstream businesses**	**Total welfare impact**
Scenario B - low PT, high PED to low PED	£18m to £21m	-£7m to -£9m	-£61m to -£63m	-£49m to -£52m
Scenario C - high PED to low PED	Around £22m	Around -£13m	Around -£12m	-£2m to -£3m
Range	**£18m to £22m**	**-£7m to -£13m**	**-£12 to -£63m**	**-£2m to -£52m**
Average across all scenarios*	**£21m**	**-£10m**	**-£37m**	**-£27m**

Scenario B – low PT, high PED to low PED = impact range where all producers increase their prices to the full extent of the measure, with a 25% tariff cost pass through and demand elasticity varying between -1.6 and -1.4.

Scenario C – high PED to low PED = impact range where US producers exit the market. UK and third country producer prices remain the same, with demand elasticity varying between -1.6 and -1.4.

PED = price elasticity of demand, assumed value is -1.6 for high scenarios and -1.4 for low scenarios.

PT = tariff cost pass through to downstream businesses, assumed value is 100% for high scenarios and 25% for low scenarios.

*The average value should not be treated as a central estimate. It serves to indicate whether the majority of scenarios are closer to the top or bottom of the range.

J7. Likely impact on affected industries and consumers

J7.1. UK Producer

303. Imposing a measure would help prevent further injury to the UK industry from US imports and could generate annual benefits of between £18m and £22m for the UK producer. In our impacts modelling, we also considered scenarios where the UK producer raises prices to the full level of the measure, with a 100% cost pass-through and demand that is highly sensitive to price changes. However, we have not included these scenarios in this report, as we believe it is unlikely the UK producer would take that approach. This is because raising prices to the full extent of the measure could potentially lead to net losses for the UK producer, as it is likely to cause a significant drop in demand for their S-PVC.

304. The UK producer is likely to benefit most by maintaining current price levels if demand exhibits low price sensitivity and US producers exit the market (Scenario

C). The lowest impact is likely to occur if they raise prices slightly and demand is highly sensitive to those price changes (Scenario B). We think that the actual impact may fall between these two extremes. We do not foresee a full price increase to the level of the measure for the UK producer, but we expect they may adopt a pricing strategy that allows them to benefit from reduced competition from US imports of S-PVC. To avoid further loss of market share, the UK producer will likely maintain a balance between increasing prices and remaining competitive with imports from other countries.

305. In contrast, not imposing a measure would likely cause the UK industry to keep losing market share due to cheaper S-PVC from the US, as UK producers would struggle to lower their prices further. This could lead to a further decline in the UK producer's market position over the long term. While we do not expect the UK producer to exit the market without the measure, we do anticipate their profit margins to drop significantly, assuming there are no upward production costs. This reduction in profits could hinder their ability to invest in research and development (R&D) for improved production methods, potentially limiting productivity gains and the environmental benefits of producing more sustainable S-PVC in the UK.

J7.2. Importers

306. It is important to emphasise that due to the non-participation of importers until the final stages of this investigation, we could not conduct a thorough assessment of the potential impacts on importers if a measure is imposed.

307. From the available evidence, we estimate that imposing a measure could result in annual costs ranging from £7m to £13million for importers, with an average cost across all scenarios of approximately £10m. The lowest impact on importers is seen where all producers raise prices in line with the measure, but at a low tariff passthrough rate and low sensitivity of demand to prices (Scenario B). The highest impact is likely to occur where only US producers increase their prices in response to the measure, leading them to exit the market due to highly price-sensitive demand for S-PVC (Scenario C). We expect that the actual impact is likely to fall between these extremes. However, given that competitively priced S-

PVC imports from third countries will still be accessible, we do not anticipate that the operations of importers would be significantly disrupted as they are likely to switch to cheaper suppliers of S-PVC.

308. If a measure is not imposed, we do not expect any significant impact on importers.

J7.3. Downstream businesses

309. Our analysis suggests that imposing a measure could result in annual costs ranging from £12m to £63m, with an average cost across all scenarios of about £37m. The lowest impact occurs where only US producers increase their prices in response to the measure, leading them to exit the market due to highly price-sensitive demand for S-PVC (Scenario C). On the other hand, the highest impact is seen where all producers raise prices in line with the measure, but at a low tariff passthrough rate and low sensitivity of demand to prices (Scenario B). We expect the actual impact to fall somewhere between these two extremes.

310. According to the downstream business survey, respondents indicated that if a measure were imposed on S-PVC from the US, they would seek alternative suppliers in Europe, Asia, and South America. We expect that downstream businesses sourcing S-PVC from US will have increased input costs, which they may either absorb, pass on to consumers of their final products, or offset by switching to more cost-effective suppliers from other countries. Furthermore, the evidence available shows that the UK producer possesses some spare capacity to accommodate potential increases in demand for S-PVC from downstream users.

311. If no measure is imposed, we do not anticipate any impact on downstream businesses.

J7.4. Upstream businesses and Consumers

312. We have not assessed the impact on these groups because our economic significance analysis indicates that S-PVC is not important to upstream businesses. Consumers were not included in our analysis, as S-PVC is not considered to be a consumer good.

J7.5. Overall welfare impacts

313. Imposing a measure on S-PVC imports from the US is expected to result in significant overall welfare impact across the supply chain. The annual costs are estimated at between £2m to £52m. The average annual impact could cost around £27m. Evidence shows that imposing this measure is likely to significantly benefit the UK producer, enabling their recovery from the injury caused by the dumped imports. Without a measure, UK production is likely to continue declining, which may lead to reduced investment by the producer and forcing them to lower prices to unsustainable levels, where profitability becomes challenging.

314. Despite the potential costs to the rest of the supply chain from imposing a measure, we expect that increased production by the UK producer and competitively priced imports from other countries would ensure a steady supply of S-PVC. This implies that importers and downstream businesses could remain largely unaffected.

J8. Likely impact on particular geographic areas, or particular groups, in the UK

315. This section examines how the impacts of the proposed measure are likely to be geographically distributed and whether any particular groups might be disproportionately affected. This geographic analysis considers the three groups to which S-PVC was deemed to be at least a somewhat important product: UK producer of S-PVC, UK Importers of S-PVC, and Downstream businesses.

J8.1. Likely impact on particular areas

316. We considered the geographic areas where the UK producer, importers and downstream businesses are located. We have assessed geographic impacts using employment and indicators of deprivation at a Travel to Work Area (TTWA) level for the UK producer, importers, and downstream businesses.

317. The data used for the geographic significance analysis were sourced through questionnaire responses, Dun & Bradstreet business directory and the ONS

estimates of working age population by TTWA. We assessed the geographic significance by exploring the employment of affected industries as a proportion of employment in each TTWA.

318. In our analysis, where employment is less than 1% of the working age population within a TTWA, we considered this to indicate that there is no likelihood of a disproportionate negative geographic impact. However, we found two areas where the estimated employment from the affected groups constituted about 1% of the working age population of the TTWAs they are located.

J8.2. UK Producer

319. The UK producer operates two sites across the UK and provided employment data for these two sites. The site located in North-east England is responsible for the production of S-PVC, while the other located in the North-west, handles administrative functions. For both sites however, employment is not a significant proportion of the total employment within the different TTWA where they are located. We do not expect the imposition or non-imposition of a measure to have any significant impacts.

J8.3. Importers

320. We considered the locations of the selected importers using available evidence and found that sites for these companies are located across England. Using data obtained from Dun and Bradstreet, we determined that one of the selected importers employs about 1% of the working age population within the Pwllheli and Porthmadog TTWA in Wales.

J8.4. Downstream businesses

321. For downstream businesses, which are predominantly manufacturers that use S-PVC to produce final goods, the Dun and Bradstreet data also revealed that one business, located within the Hawick and Kelso TTWA in Scotland, employs about 1.83% of the working age population.

322. Although employment numbers for one importer and one downstream business represent a significant proportion of the working-age population in those TTWAs, we do not anticipate that these geographic areas will be negatively impacted by the imposition of a measure. This is because the businesses involved are large and diversified, and they are likely to source their S-PVC from less expensive suppliers outside of the US.

323. Table 28 shows the proportion of employment of the affected businesses relative to employment within their TTWAs.

Table 28: Socio-economic indicators for affected TTWAs

Stakeholder	TTWA	Unemployment rate (%) (2020)	Job Density (2019)	Proportion of working-age population with no formal qualification (2021) (%)	Total employment relative to TTWA employment
Importer	Pwllheli and Porthmadog	4.31	0.8	34.7	1.00%
Downstream	Hawick and Kelso	5.51	0.77	39.9	1.83%

J8.5. Likely impact on particular groups

324. The TRA considered the likely impact on particular groups including those with protected characteristics as defined by the Equality Act 2010.

325. No evidence was provided regarding potential impacts on any particular groups, either as workers or consumers. There is no evidence to suggest that there will be disproportionate impacts on particular groups with the imposition or non-imposition of a measure.

J9. Likely consequences for the competitive environment, and for the structure of the market, in the UK

326. The assessment of the likely consequences for the competitive environment and structure of the UK market considers four factors:

- the impact on the number or range of suppliers
- the impact on the ability of suppliers to compete
- the impact on the incentives to compete vigorously and
- the impact on the choices and information available to consumers

J9.1. Background

327. There is only one known UK producer and many importers and downstream businesses for S-PVC. There are also a range of suppliers in the US and other countries exporting to the UK. Table 14 above shows the market share details and countries with largest import volumes to the UK.

J9.2. The impact on the number or range of suppliers

328. There are high barriers to entry into UK S-PVC market such as high capital investment, stringent regulatory compliance, and technological expertise. The level of expertise required to efficiently produce S-PVC at scale means there is unlikely to be an increase in the number of UK producers with the imposition or non-imposition of a measure.

329. The imposition of a measure might lead to a decrease in the number or range of suppliers from the US into the UK market. However, this effect may not be immediate if existing contracts and outstanding orders still need to be fulfilled. Despite potential exits by US suppliers, we anticipate the UK market will remain competitive due to the presence of suppliers from other countries exporting competitively priced S-PVC to the UK.

J9.3. The impact on the ability of suppliers to compete

330. Imposing the measure would increase the prices of the dumped goods from the US but is not likely to reduce the ability of suppliers from other countries to compete in the UK market.

J9.4. The impact on the incentives to compete vigorously

331. There is no evidence to suggest that suppliers would face reduced incentives to compete vigorously with the imposition or non-imposition of a measure.

J9.5. Impact on the choices and information available to consumers

332. S-PVC is not directly supplied to final consumers. There is no evidence to suggest that imposing a measure would negatively impact consumer choice or the availability of information.

J10. Such other matters as the TRA considers relevant

333. As part of the EIT assessment, the TRA can consider any other factors that may be relevant in concluding whether the proposed measure is in the economic interest of the UK.

334. We received questionnaire responses regarding the environmental impacts of S-PVC production in the UK, highlighting plans for a greener supply chain compared to that of the US.

335. The UK producer stated that the UK production of S-PVC is aligned with investments in sustainability-related projects. These projects are designed to reduce greenhouse gas emissions (GHG) at the UK plant. By focusing on sustainable production methods and implementing innovative technologies, the UK producer aims to make a substantial impact on the environmental footprint of their operations.

336. The UK producer noted that if a measure were imposed on the goods in question, it would provide them with an opportunity to reinvest some of their profits into a variety of sustainability projects. This reinvestment would not only help the company align with national climate objectives but also position it as a leader in environmental responsibility within the industry.

337. They also provided a net zero roadmap, outlining their plan to reduce their carbon footprint by 33% by 2030 and achieve net zero CO_2 emissions by 2050.

J11. Conclusions

338. In accordance with paragraph 25 of Schedule 4 to the Act, the EIT is met if the application of an anti-dumping remedy is in the economic interest of the UK. This test is presumed to be met unless the TRA is satisfied that the application of the measure is not in the economic interest of the UK.

339. As described in previous sections, we determined that the UK industry has been suffering injury due to the dumped goods from the US. The injury assessment concluded that there would be further injury if no measure were recommended.

340. The economic significance section assessed the financial metrics of the different groups that make up the supply chain for S-PVC in the UK. We found that S-PVC is very important to the UK producer, somewhat important to importers and downstream businesses, but not important to upstream businesses.

341. In the impacts section we found that the imposition of a measure would have a positive impact on UK producers, while this may have a negative impact on importers and downstream businesses that source S-PVC from the US. However, we concluded that the affected importers and downstream businesses are likely to switch to less expensive suppliers of S-PVC.

342. We concluded that the imposition or non-imposition of a measure is not expected to have any geographical impacts due to sites being distributed across the UK and employment for each site being a small proportion of total employment in most areas. We found two businesses which employ about 1% of the population of their TTWA. We concluded that since they are large and diversified, it is unlikely that their employment levels will be significantly impacted by the imposition of a measure, because they are likely to switch to less expensive suppliers of S-PVC. There was no evidence of impacts on particular groups.

343. In the competition section, we found that imposing a measure is likely to reduce the number of suppliers from the US. However, we determined that the market is likely to remain competitive given the range of suppliers from other countries. We

found no evidence that imposing a measure would significantly reduce the ability of suppliers to compete in the UK market.

344. We were also asked to consider the environmental impacts of UK production of S-PVC. We found that the UK industry is aligned towards investing in more sustainable production methods.

345. We have identified the following potential positive impacts of imposing a measure:

- The UK producer would benefit from the removal of injury, allowing them to reinvest profits into more sustainable production methods
- Imposing a measure would allow the UK industry to compete fairly with S-PVC imports from the US
- The measure would enable the UK industry to increase production, allowing them to operate closer to their full capacity and potentially increase their productivity

346. The potential negative impacts of implementing a measure as recommended are:

- Higher cost pressures for downstream businesses that rely on S-PVC from the US. If price increases are substantial, businesses with already low profit margins may face further margin reductions if they are unable to pass on these additional costs to customers or switch easily to more affordable S-PVC suppliers
- Imposing a measure could result in higher prices for importers sourcing S-PVC from the US, which they may need to absorb or pass onto downstream businesses, until they can switch to more affordable suppliers
- Following the imposition of the measure, the UK producer may struggle to quickly increase production to compensate for the supply shortfall from the US, potentially resulting in insufficient supply of S-PVC in the short term

347. Having considered the evidence submitted by the relevant parties and all the EIT factors, we conclude that the EIT is met for the proposed requirement of an anti-

dumping remedy. We do not have evidence to suggest that the potential negative impacts are disproportionate to the potential positive impacts.

Section K: Final determination and recommendations

348. The TRA's final determination is set out below.

349. The TRA has made a final affirmative determination under paragraphs 11(5) and 11(6)(a) of Schedule 4 to the Act, on imports of the goods concerned originating in the US as described in the notice of initiation that are currently classified under the commodity codes:

- 3904 1000 15
- 3904 1000 80

350. The TRA has determined that the goods concerned that are the subject of the final affirmative determination have been dumped into the UK and the dumped goods have caused injury to a UK Industry in those goods. The TRA therefore recommends to the Secretary of State that an anti-dumping measure is imposed.

351. In accordance with paragraphs 17(3), 18(2)(a)(i), and 18(5) of Schedule 4 to the Act, the TRA recommends that the Secretary of State apply an additional amount of import duty to the goods concerned, calculated as an ad valorem rate of the value of the goods concerned, and imposed for a period of five years subject to the final affirmative determination.

352. In accordance with paragraph 18(6) of Schedule 4 to the Act and regulation 36 of the Regulations, the TRA recommends that the Secretary of State determines the anti-dumping amount to apply with reference to the lower of the two margins, that being the dumping margin. Individual margins as well as the residual amount are shown in Table 28.

Table 28: Recommended ad-valorem duty rates			
US producer	**Dumping Amount**	**Injury Amount**	**Duty Amount**
Formosa Plastics Corporation, USA	38.43%	55.50%	38.43%
All other US producers (residual amount)	56.01%	74.64%	56.01%

353. As previously noted, the PAD and the recommendation to require a guarantee was made pursuant to paragraphs 11(3) and 13(3)(a) of Schedule 4 to the Act.

354. The provisional measures came into effect on 29 November 2024 with a requirement that importers of the goods concerned provide a guarantee in the form of cash, a bond, or a bank guarantee, equal to the estimated amount of provisional anti-dumping duty due on their imports of goods from the US.

355. We therefore recommend (in accordance with paragraph 19(3)(b) of Schedule 4 to Act, and regulation 91(1A)(a) of the Regulations) that the definitive measures, which are the subject of the final affirmative determination, should apply to imports of the goods concerned from 29 November 2024.

356. In line with paragraph 18(3) of Schedule 4 to the Act, our recommendation is that; the definitive measures apply as an ad-valorum duty for a period of five years, commencing from the day after publication of the Secretary of State's notice giving effect to this recommendation, plus the period from 29 November 2024 until the date of publication of that notice.

Annex A: Cooperating Interested Party / Contributor List

Annex A lists the cooperating interested parties and contributors:

Annex A: Cooperating Interested Party / Contributor List	
Interested Party name	**Status**
Inovyn ChlorVinyls Limited	Applicant / UK Producer
Formosa Plastics Corporation, USA	US Producing Exporter
Ravago Americas LLC DBA Resintech	US Non-Producing Exporter
Genuit Group Plc	Contributor
Vestolit GmbH	Contributor
Eurocell Plc	Contributor
The British Plastics Federation	Trade Body
Palram DPL Limited	Importer / Downstream user

Trade Remedies Authority

Annex B: Interested parties and contributor responses

Annex B below lists the information submitted to the TRA by interested parties and contributors to date, and the extent to which information submitted has been considered by the TRA in reaching its decisions in the final affirmative determination.

Annex B: Summary of information received from interested parties and contributors		
Interested Party	**Information Received**	**Status**
Inovyn	Application	Applicant
Inovyn	Pre-Sampling Questionnaire	Applicant
Inovyn	Questionnaire	Applicant
Inovyn	Response to Oxy comments on the application	Applicant
Inovyn	Response to Oxy comments on the registration of imports	Applicant
Inovyn	Response to Resintech comments on injury submission	Applicant
Inovyn	Response to Statement of Essential Facts	Applicant
Oxy	Pre-Sampling Questionnaire	US Producing Exporter
Oxy	Comments on the Application	US Producing Exporter
Oxy	Comments on business survey	US Producing Exporter
Oxy	Comments on the registration of imports	US Producing Exporter
Resintech	Pre-Sampling Questionnaire	US Non-Producing Exporter
Resintech	Questionnaire	US Non-Producing Exporter
Resintech	Injury Submission	US Non-Producing Exporter
Formosa	Pre-Sampling Questionnaire	US Producing Exporter

Formosa	Questionnaire	US Producing Exporter
Westlake	Pre-Sampling Questionnaire	US Producing Exporter
Vinmar	Pre-Sampling Questionnaire	US Non-Producing Exporter
Tricon	Pre-Sampling Questionnaire	US Non-Producing Exporter
Genuit	Pre-Sampling Questionnaire	Contributor
Eurocell	Pre-Sampling Questionnaire	Contributor
Vestolit	Pre-Sampling Questionnaire	Contributor
The British Plastics Federation	Pre-Sampling Questionnaire	Trade Body
Palram	Abridged questionnaire	Importer /downstream user
Various (8)	Online questionnaire for downstream users -summary	Downstream users

Trade Remedies Authority

Annex C: Duty rates and additional codes

The table below demonstrates the additional tax code used when importing S-PVC from the US to the UK.

Annex C: Ad-valorem duty rates and additional codes for HMRC		
US producer	**Duty Amount**	**ADD code**
Formosa Plastics Corporation, USA	38.43%	8A30
All other US producers (residual amount)	56.01%	8999