
Anticipated acquisition by Polypipe Building Products Limited of Verplas Limited

The OFT's decision on reference under section 33(1) given on 11 July 2007.
Full text of decision published 23 August 2007.

Please note that items in square brackets have been redacted at the parties request for reasons of commercial confidentiality

PARTIES

1. **Polypipe Building Products Limited** (Polypipe) is a manufacturer of plastic piping, ventilation and sanitary systems used in the house building industry in the UK and continental Europe.
2. **Verplas Limited** (Verplas) is a manufacturer of ducting, modular ventilation systems, and accessories, used mainly in the house building industry in the UK. In the financial year ended June 2005, Verplas' turnover amounted to approximately £[3-6]m.

TRANSACTION

3. Polypipe proposes to acquire the entire issued share capital of Verplas. The parties filed an informal merger submission on 30 April 2007. The administrative target date for the OFT's decision is 11 July 2007.

JURISDICTION

4. As a result of this transaction, Polypipe and Verplas would cease to be distinct. The parties' combined UK share of the supply of domestic ducting products exceeds 25 per cent and consequently the share of supply test in section 23 of the Enterprise Act 2002 (the Act) is met. The OFT therefore believes that it is or may be the case that arrangements are in progress or

in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.

PRODUCT MARKET

5. The parties submit, on the basis that the costs of entering any segment of the wider market of domestic ventilation systems are low, that the candidate product market of domestic ducting products could be as wide as domestic ventilation systems. The parties claim that suppliers who currently do not offer a particular product within the wider market could begin manufacturing and selling such products within a short space of time without incurring significant sunk costs.
6. The parties also argue that there is no requirement on firms entering the market to acquire and operate a manufacturing plant. New entrants can source the relevant products from third parties in the UK or abroad.
7. Domestic ventilation systems comprise two main components: fans and ducting. In practice, these components are sold both separately and as a bundle. Without prejudice to the candidate product market being wider, the analysis in this decision proceeds on the cautious assumption that fans and ducting constitute separate frames of reference.

Fans

8. Both Polypipe and Verplas supply fans to third parties. They submit that their post merger share of the supply of fans for domestic ventilation (the only type of fan where there the parties overlap) is around one per cent. No third party raised any concerns with regard to the parties' supply of fans in particular and the OFT considers that no further analysis on this issue is warranted in this decision.

Ducting

9. Ducting is the principal area of overlap between the parties. It comprises pipes and accessories used to channel air into, around and out of buildings, either with the aid of a fan (active ventilation) or without (passive ventilation).

Domestic vs. commercial ducting

10. The parties submit that both domestic and light commercial ducting are distinct from heavy duty (industrial) commercial ducting. The sizes of ducts, the materials used and the technical specifications for commercial ducting are very different from those which apply to the domestic product. There is therefore little or no scope for substitution on the demand side.
11. Opportunities for supply side substitution are also limited given that industrial ducting is typically fabricated from sheet steel using machines specifically designed for that purpose. Domestic ducting on the other hand is commonly constructed from plastics using completely different types of machinery.
12. Since the parties both produce ducting only for domestic applications, commercial ducting is not considered further and the following analysis concerns ducting for domestic use exclusively.¹

Rigid vs. flexible ducting

13. The parties proposed in their original submission that rigid and flexible ducting for domestic ventilation systems are functionally interchangeable and are demand side substitutes. Evidence from the parties suggests that although flexible ducting costs around half the price per metre of rigid ducting and is easier to fit, it accounts for only [10-30] per cent of the overall supply of ducting for domestic ventilation systems comprises while [60-90] per cent is rigid ducting. The OFT considers this good evidence to show that rigid ducting should not be considered as part of the same candidate product market as flexible ducting. This is so because its desirable functionality for certain uses must explain why customers are prepared to pay a substantial price premium for it despite the fact that it is more difficult to fit than flexible ducting.
14. In a later submission, the parties explained that, although rigid ducting is generally more expensive than flexible, it is generally the preferred choice for installation. They argue that rigid ducting is more effective in that it allows for more efficient airflow. It is also stronger than flexible ducting which is liable to tear or be damaged on installation or during use. In addition, rigid

¹ Ducting for domestic purposes may be used in some small, light commercial applications where the ventilation requirements are closer to domestic requirements than typical industrial requirements.

ducting is preferred whenever the ducting system will be visible in a property due to its perceived aesthetic properties.

15. On the basis of the evidence before the OFT, and as confirmed by many customers, the OFT does not believe that customers would switch to flexible ducting in sufficient volumes to render a 5-10 per cent price increase in rigid ducting unprofitable. The OFT therefore considers that rigid and flexible ducting are poor demand side substitutes.
16. On the supply side, flexible ducting and rigid ducting are produced using different types of machinery. The OFT therefore considers that there is no scope for supply side substitution using existing equipment.
17. The parties also submit that, because rigid ducting is manufactured on non-specialised machinery capable of producing a wide variety of extruded² plastic products, third party manufacturers can be contracted to produce either ducting or other extrusions as necessary. This allows suppliers great flexibility to respond quickly to changing patterns in demand. In order to begin production of ducting they would need only to add specialised tooling to the machines in question.
18. The parties state that 'certain extrusion manufacturers will already have such tooling available' but have not provided evidence in support of this assertion.
19. Unlike rigid ducting, flexible ducting is manufactured using specialised machines. The OFT therefore considers that supply side switching by manufacturers of exclusively rigid extruded plastics would not be feasible in the short term.

Rectangular vs. circular ducting

20. The parties supply both flexible and rigid ducting in rectangular and circular formats. The parties' sales of flexible rectangular ducting are very small and no relevant third party concerns were raised. This product area is not therefore considered any further in this decision.

² **Extrusion** is a manufacturing process used to create long objects of a fixed cross-sectional profile. A material, often in the form of a billet is pushed and/or drawn through a die of the desired profile shape.

21. The parties submitted that all types of ducting should be considered together but also noted that rectangular ducting is more compact and space-efficient when installed, while circular ducting allows for more effective airflow.
22. On the supply side, an existing manufacturer of either circular or rectangular ducts would simply need to purchase the appropriate tooling for its existing extruding machines in order to begin producing the other type. The parties estimate that tooling costs could be as low as £[20-50]k for three second-hand duct tools and approximately £[90-120]k for moulds to produce injected moulded accessories: a total of around £[110-150]k. However, the parties note that the cost of 'state of the art' high speed duct tooling could amount to around £[200-500]k. In which case, the total costs for such duct tooling and injection moulds could be as high as £[200-500]k.
23. Third parties have argued that tooling costs are much higher, with one third party estimating costs of up to £1 million. These costs do not take into account the opportunity cost of producing less of one type of ducting as a result of selecting to produce the other type. However the parties have provided some documentary evidence to suggest that tooling costs are not as high some third parties have suggested.
24. Substantial price differences – the price of circular ducts being less than half the price of rectangular – also indicate that supply side substitution is not a sufficient constraint to prevent a hypothetical monopolist from raising the price of rectangular ducting. Assuming similar input costs and ease of switching, the OFT would expect more similarity in prices between the two categories of ducting.
25. Other evidence before the OFT indicates that manufacturers typically produce both rectangular and circular rigid domestic ducting, rather than one or the other exclusively. This may be attributable to economies of scope, since both types are produced from the same plastic extruding machine, and economies of scale since both types are made from the same material.
26. Overall, although it may be the case that circular and rectangular ducting form separate frames of reference from the demand side perspective, in practical terms – given that most manufacturers produce both types from the same extruding machines – the OFT considers that it is sensible to consider them together for the purposes of analysing the competitive effects of this transaction.

Conclusion

27. In conclusion, the evidence indicates that rigid and flexible ducting each comprise separate frames of reference. As far as rigid ducting is concerned, although rectangular and circular ducting do not appear to be good substitutes on either the demand or the supply side, the fact that most manufacturers produce both types from the same extruding machines, indicates to the OFT that it is rational to consider rigid ducting as a whole rather than as separate segments. Similarly, third party concerns are levelled at rigid ducting as a whole rather than a particular segment.

GEOGRAPHIC MARKET

Flexible ducting

28. The parties submitted that the relevant geographic frame of reference for flexible ducting is pan-European. They submitted that flexible ducting contracts to about one-fifteenth of its fully expanded length (e.g. three metres of flexible duct contracts to 200 millimetres). This allows for five three metre lengths of flexible duct to be packed and shipped in the same space as a single one metre length of rigid duct. Consequently there are no barriers to its cost-effective distribution over a wide geographic area.
29. A large number of third parties confirmed that they were confident that they could source flexible ducting from overseas both in Europe and Asia. One customer said that if necessary it could source flexible ducting from China and be 'up and running in two months'.

Rigid ducting

30. The parties submit that the geographic frame of reference for rigid ducting is at least national in scope. They told us that all of Verplas' supplies are distributed from its headquarters in Dorset. All of Polypipe's direct supplies are distributed from its distribution centre in Saffron Walden.
31. Most third parties confirmed that the parties supplied rigid ducting throughout the UK.
32. The parties also proposed that the geographic frame of reference for rigid ducting may be wider than the UK but conceded that 'rigid ducting is less cost-effective when transported over long distances'.

33. The OFT has seen no evidence of significant imports of rigid domestic ducting. One third party pointed to small scale imports from a company in the Netherlands although the OFT was not able to substantiate this claim. Two other third parties confirmed that they import small amounts of ducting into the UK but suggested that these were either small consignments or imports of specialised fittings not manufactured in the UK. Another third party confirmed that it considers the UK to be an export market for its rigid ducting products but refused to confirm whether it would be willing and able to increase exports to the UK following a price increase. Neither the parties nor any third parties were able to provide even rough estimates of the volume or value of rigid ducting imported into the UK.
34. The majority of third parties submitted that import costs were high relative to the value of the product. The rigid nature of the ducts means that relatively few units take up relatively large amounts of shipping space.
35. Polypipe submits that it exports [10-30] per cent by value of its total production of rigid ducting from mainland Great Britain. Just over half ([-] per cent) of these exported consignments go to Ireland (the available evidence indicates that there is no manufacture of rigid ducting within Ireland), [0-5] per cent goes to Belgium, [0-5] per cent to Germany, [0-5] per cent to Austria, [0-5] per cent to Sweden and France respectively, and [0-5] per cent to other countries not specified.
36. The OFT does not consider that such evidence on exports of rigid ducting can be relied upon as a good indication that imports would defeat a price rise by a hypothetical monopolist supplier in the UK. In the case of Ireland [excision] there is no evidence of domestic production, so the competitive situation is not comparable to that which exists in the UK. In the case of exports to other European countries, it may be the case that the parts being exported are higher value, specialised fittings for which transport costs make up a lower proportion of total costs. Overall, the OFT considers the available evidence on the prospects for imports merits a competitive analysis being undertaken on the basis of a candidate geographic market no wider than the UK.

NON-COORDINATED EFFECTS

Flexible ducting

37. The OFT's investigation indicated that the appropriate geographic frame of reference is substantially wider than the UK. Given the presence of numerous competitors within Europe and beyond, the presence of at least one additional UK firm that has confirmed its ability to produce (but is not currently producing³) and the absence of concern from third party customers of flexible ducting, the OFT does not believe there is a realistic prospect of harm to competition in the UK supply of this product.

Rigid ducting

38. The transaction raises concerns on the basis that it appears to merge close competitors and reduce the number of UK-based manufacturers of rigid ducting from three to two, in circumstances where neither entry or expansion will be timely, likely or sufficient to deter Polypipe from raising price post-merger. The factors supporting this conclusion are as follows.

- Available evidence from third parties suggests that Manrose is the only other significant domestic manufacturer in competition with the merging parties.
- The parties themselves estimate Polypipe's post-merger share of supply to be [30-60] per cent (an increment from the acquisition of Verplas of [10-30] per cent) and they attribute a [10-30] per cent share to Manrose. Although it is not material to the final decision the OFT believes these figures understate the true degree of concentration on the basis that the parties attribute a [20-40] per cent share to other unidentified manufacturers in circumstances where customers identified only the parties and Manrose as significant UK-based producers.
- Overall customer comment suggests that Polypipe is seen as the premium brand. One customer suggested that Polypipe's Domus brand is 'dominant' – while Verplas is more price competitive. A number of third parties have described Verplas as being 'price competitive' or have

³ This third party submitted that it has the capability to manufacture flexible domestic ducting but does not currently do so because the market is so competitive that it is cheaper to buy in than manufacture in-house.

mentioned Verplas' willingness to cut price in response to demands from customers.

- This suggests that there is some differentiation between the parties. However, given the very limited number of manufacturers, this also explains why customers generally responded that the merging parties were close competitors. One third party said that up until now the parties have been 'constantly at each other throats'. Indeed, the parties' ducting systems are generally compatible with each other and a significant proportion of customers who currently buy from Verplas told us that in the past they have purchased from Polypipe. Although the switching data provided by the parties specifically excludes customers who switched between the merging parties, it does show that [excision].
- This evidence indicates that the parties are likely to be first and second choices for a substantial proportion of customers, suggesting a unilateral incentive for Polypipe to raise price post-merger as it recoups sales that would have otherwise lost to an independent Verlplas.
- The evidence on entry, expansion and buyer power, set out in more detail below, suggests that none of these constraints would be sufficient, alone or in tandem, to defeat post-merger price increases by Polypipe in respect of its own or the acquired Verplas product lines in rigid ducting.

Conclusion

39. In the OFT's view, there is sufficient evidence to indicate that the merger would remove close competition between the parties in rigid ducting and presents a realistic prospect of a substantial lessening of competition post-merger.

COORDINATED EFFECTS

40. The OFT has considered whether the transaction would raise the possibility of coordinated effects within the UK supply of rigid ducting for ventilation systems. Generally speaking, a reduction in an already small number of suppliers may increase the ability of the remaining players to align market behaviour and establish or consolidate coordination in their commercial behaviour. In this case the merger would reduce the number of principal UK manufacturers of rigid ducting from three to two.

41. No evidence has been presented to suggest that coordination has been occurring pre-merger. However, the issue is not just whether the merger might strengthen pre-existing coordination, but whether it would create a significantly greater risk of coordination post-merger relative to pre-merger. In this respect the following factors are arguably relevant.
- Verplas is the only non-integrated manufacturer and there is customer evidence in support of the proposition that it is a price cutter. Consequently its absorption into Polypipe would result in the loss of the only non-integrated player and an effective and price competitive rival whose presence, it may be argued, impedes any attempts by Polypipe and Manrose to coordinate absent the merger.
 - The two remaining players are both vertically integrated suppliers of a range of products consisting of extruded plastic pipes and injection moulded fittings. Given that Polypipe intends to rationalise the product lines of the merged firm in, among other things, rigid ducting products, the scope for coordination may be greater post-merger than pre-merger because a reduction in complexity of reaching terms of coordination.
 - [Excision]. It is rational for customers to attempt to secure more favourable terms by continually playing one supplier's offer against the other. However, repeated interaction in the form of negotiations between the customer base on the one hand, and the supply side on the other, may result in the emergence of a mutual understanding on the part of Polypipe and Manrose as to the disadvantages of aggressively undercutting each other's prices at the behest of customers. This may lead to the sustained coordination of the supplying firms' prices with Polypipe's price list being the focal point for coordination. As noted, any reduction in the overall portfolio of rigid ducting products available to customers might also assist in aligning terms of coordination.
 - For the reasons given below, it cannot be expected on the available evidence that post-merger coordination would be disrupted by entry (including increased imports) or by countervailing buyer power.
42. The OFT recognises that transactions should not, in principle, lead to both non-coordinated and coordinated effects in respect of the same relevant market at the same time. This should not be taken to preclude the possibility of the test for being reference to be met in first-phase merger

control on the basis of both theories. As set out above, on the available evidence the OFT believes that its non-coordinated effects theory of harm fits the relevant facts sufficiently to give rise to a duty to refer. In such circumstances, it is not necessary in this case to consider the robustness of the coordinated effects theory further.⁴

43. However, the OFT would invite the Competition Commission to consider and test which of the two horizontal theories best fits the relevant facts on fuller and further investigation.

COUNTERVAILING CONSTRAINTS

Entry

Entry costs and past entry

44. The parties submit that barriers to entering the supply of rigid ducting are low, and provided details of the likely costs of entry both for a completely new entrant and also for an existing manufacturer of plastic extrusions. They estimate that in order to win a five per cent share of supply in UK domestic rigid ducting - equivalent to sales of £[500k – 1m] - a new entrant with no existing manufacturing capacity would need to commit a total capital expenditure of approximately £[100-300].
45. According to the parties' calculations, total revenue costs (including leasehold property, transport and sales costs and a marketing budget of £[10-30]k) would be £[-]k per annum. On the basis of expenditure on this scale, the parties submit that a new entrant could expect to win a five per cent share of UK domestic ducting sales within [1 to 3 years] of commencement of sales and [1 to 3 years] of the decision to enter.
46. The parties also submit that an existing manufacturer of extrusion with no current rigid ducting output - e.g. a piping manufacturer - could achieve a similar 5 per cent share of UK domestic rigid ducting sales within [1 to 3 years], on a total capital expenditure of less than £[100-300]k and annual revenue costs of £[50-70]k.

⁴ This should not be taken to preclude the possibility in a future case of considering the test for reference to be met in first-phase merger control on the basis of both theories.

47. A number of third parties submitted however that the costs of tooling alone would make entry prohibitively expensive. Two third parties told the OFT that they had considered self supply of rigid ducting in the past but had dismissed this option as being too expensive. No third party told us that they would self supply were prices to increase post merger.
48. Various third parties gave a range of costs for purchasing the necessary tooling to start manufacturing ducting, but all were above the figures estimated by the parties.
49. One third party explained that an entrant would need a full range of accessories (corners, t-pieces, angled joints etc) and that tooling investment is 'enormous'. It estimated a minimum cost of £15,000 per tool even for 'cheap ones from the far east'. It said that one would need an estimated 40-50 components even for a basic set. Based on a cost of £15,000 per tool this would work out at 600-750k for basic set.
50. Against this however, the parties have provided documentary evidence from as recently as 2003, which indicates that [excision].
51. The available evidence suggests that Ireland [excision] has no domestic production of rigid domestic ducting and is therefore fully supplied by imports. Given the transport and other costs involved in supplying rigid ducting from the UK and mainland Europe, the fact that no domestic entrants have come into the candidate product market in the last 10 years (other than Verplas' expansion) may suggest that there are significant barriers to entry in the manufacture and supply of these products.
52. The parties submitted that Verplas only entered on a significant scale in 2002/3 but also submitted that it had begun to sell a single range of rigid domestic ducting as early as 1997. This suggests that it has taken Verplas some time to emerge as a significant competitive constraint on the other parties. It also suggests that its initial decision to enter may have been against a background of a near monopoly manufacturer since Manrose only entered the market at almost the same time (1996/7). This is in contrast to the post-merger situation which would be a clear duopoly of the merging parties and Manrose and as such may be a less attractive entry prospect than the one that existed in 1997.

53. Apart from Verplas, which entered substantially in 2002 on the back of earlier small scale entry, neither the parties nor third parties have provided any evidence of entry in the past ten years since Verplas' initial entry in 1997.

Exit costs

54. The parties proposed that there is a thriving second hand market for plastic extruding machines. They submitted that, because ducting is manufactured using generic plastic extruders rather than specialised machinery, there is a very low risk of the machinery becoming obsolete. In the majority of cases, any improvements in output on the production line will come from improvements in tooling, which they considered to be a relatively inexpensive component in the machinery. Extruders themselves can maintain their useful life for as long as 25 years. Consequently, there is a high demand for second-hand extruders sold through the plastics trade press and through merchants' websites.
55. Although this suggests the sunk costs from purchasing plastic extruding equipment may be low, it also suggests that the sunk costs from purchasing tooling may be much higher, especially if as implied by the parties' submission improvements in tooling lead to tools becoming obsolete and therefore harder to sell. In a later submission the parties argued that it is the low cost of new tooling, rather than innovation or obsolescence, which account for there being a limited second-hand market for tools.

Conclusion

56. Taking into account all of the above, the OFT cannot confidently expect that new entry will occur in the event of price rises or reduction in quality of output resulting from the merger.

Expansion by existing players

57. The parties told us that ducting machinery can be operated continuously, twenty-four hours a day with minimal maintenance. Any existing manufacturer of rigid ducting would therefore be able to increase output dramatically by devoting more machinery to ducting or by increasing the number of hours each day that the machines are used.

58. The evidence before the OFT indicates that the only competitor capable of increasing capacity in this way is Manrose.⁵
59. [Excision]. This view was supported by one third party who told us that Manrose has recently invested in increasing its extrusion capacity. However it is by no means certain that with only two players in the market it would be commercially rational for Manrose to increase production following a price increase by the merged parties.
60. The OFT therefore that it cannot be confident that expansion by the other existing player would occur in response to a price increase by the merging parties.

Buyer power

61. The parties submit that many of their customers have significant buyer power. They gave a number of examples of both Polypipe and Verplas either losing supply contracts to competitors or retaining supply contracts on the basis of more favourable terms offered to the customer.
62. However, it is not clear – in the absence of sufficient compelling evidence – as to whether even the parties' largest customers buyers would be able to challenge post-merger prices increases given the reduction in the number of alternative sources of supply.

VERTICAL ISSUES

63. Some of the parties' customers who make their own fans and then supply complete systems downstream were concerned that they would no longer be supplied because Polypipe actively competes downstream in the provision of complete fan and ducting solutions whereas Verplas does not.
64. However it is not clear whether it would be in Polypipe's interest to foreclose these downstream rivals, especially since sales of fans only account for [10-30] per cent of Polypipe's annual sales and less than [0-5] per cent of Verplas' sales. A combined Polypipe-Verplas would have a [0-5]

⁵ Manrose is currently in the process of being acquired by another company and did not provide detailed comment or views on this merger.

per cent UK share of supply of ventilation fans for domestic use. The OFT therefore considers that it would not be profitable for the merged entity to foreclose downstream rivals as losses from lost ducting sales may well outweigh increased fan sales.

65. Overall on the basis of the limited available evidence, the OFT does not believe that there is a realistic prospect of the merger leading to a substantial lessening of competition as a result of vertical foreclosure of supply.

THIRD PARTY VIEWS

66. Almost all third party customers that purchased mainly or exclusively flexible ducting from the parties were unconcerned by the merger as they were already using other sources or were confident that they could find other sources in the event of a price increase.
67. Many, although not all, customers of rigid ducting were concerned. However most of the concerned customers are also the parties' competitors who had reservations with regard to reliance on a direct competitor for their supplies of rigid ducting.

ASSESSMENT

68. The parties overlap in the manufacture and supply of domestic ventilation products. Neither of the parties is active in installation, servicing, after-sales or any other service.
69. The OFT's only concerns relate to the manufacture and supply of rigid ducting products. For rigid domestic ducting the appropriate candidate geographic market is no wider than the UK due to significant transport costs relative to the value of the product and a lack of any evidence of substantial imports pre-merger. The merger represents a reduction in the number of UK-based manufacturers from three to two. Import costs are significant and barriers to entry exist. Apart from Verplas, which entered substantially in 2002 on the back of earlier small scale entry in 1997, there is no evidence of entry into rigid domestic duct manufacturing in the UK in the past ten years.

70. Third parties told us that the parties were either close or very close competitors. Overall the evidence suggests that the merger may lead to non-coordinated effects, creating a clear risk that prices could increase post merger. Nonetheless, the OFT also invites the Competition Commission to consider further whether coordinated effects is ultimately a more compelling theory on the facts of this case.
71. Although it may be the case that a new entrant could replace the competition lost from Verplas, the OFT does not have sufficient evidence to be confident that entry will be timely, likely and sufficient in response to a post-merger price increase.
72. Consequently, the OFT believes that it is or may be the case that the merger may be expected to result in a substantial lessening of competition within a market or markets in the United Kingdom.

DECISION

73. This merger will therefore be referred to the Competition Commission under section 33(1) of the Act.