EN

Case No COMP/M.4173 - NIPPON SHEET GLAS / PILKINGTON

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REGULATION (EC) No 139/2004
MERGER PROCEDURE

Article 6(1)(b) NON-OPPOSITION
Date: 07/06/2006

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COMMISSION OF THE EUROPEAN COMMUNITIES

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In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus […]. Where possible the information omitted has been replaced by ranges of figures or a general description.	PUBLIC VERSION MERGER PROCEDURE ARTICLE 6(1)(b) DECISION

To the notifying party

Dear Sir/Madam,

Subject: Case No COMP/M.4173 - NIPPON SHEET GLAS / PILKINGTON Notification of 28.04.2006 pursuant to Article 4 of Council Regulation No 139/2004[1]

Date of notification : 28.04.2006
Legal Deadline : 9.06.2006

1. On 28 April 2006, the Commission received a notification of a proposed concentration, following a referral pursuant to Article 4(5) of Council Regulation (EC) No 139/2004, by which the undertaking Nippon Sheet Glass ("NSG", Japan), acquires within the meaning of Article 3(1)(b) of the Council Regulation control of the whole of Pilkington plc ("Pilkington",UK) by way of an arrangement, whereby Pilkington will cancel its share capital and issue new shares to NSG.

I. THE PARTIES

2. **NSG** is a Japanese company listed on the Tokyo Stock Exchange. It has a diverse customer base across the building, automotive and electronic industries in relation to the manufacture of float glass and fibreglass. NSG´s activities are primarily in East Asia, in particular Japan. It also has a limited presence in Europe and North America through joint ventures and

[1] OJ L 24, 29.1.2004 p. 1.

strategic alliances. It has manufacturing operations for float glass in Asia and makes sales to both the automotive and general trade in 15 countries.

3. **Pilkington** is a company registered in England and Wales, listed on the London Stock Exchange. Pilkington manufactures glass and glazing products for the building and automotive industries. It has operations in 24 countries across five continents and sales in 130 countries. Pilkington is predominantly active in Europe, but is also active in North America, South America and Australia.

II. THE OPERATION AND CONCENTRATION

4. The operation consists of the acquisition of sole control by NSG of Pilkington. The acquisition will take place by way of public bid, through NSG UK Enterprises Limited ("NSG UK"), a wholly owned indirect subsidiary of NSG. It will be effected by way of a court sanctioned scheme of arrangement, whereby Pilkington will agree with its shareholders that its issued share capital will be cancelled and new shares issued to NSG UK.

5. The operation constitutes a concentration within the meaning of Article 3.1(b) of Council Regulation (EC) No 139/2004

III. COMMUNITY DIMENSION

6. The parties have a combined worldwide turnover of more than €5 billion[2] (€[…] for NSG and €[…] for Pilkington). The undertakings concerned do not achieve more than two-thirds of their aggregate Community-wide turnover within one and the same member-state. However, the concentration does not have a Community dimension within the meaning of Article 1 because the individual Community-wide turnover of both NSG and Pilkington does not reach the thresholds established under Article 1(2) or, alternatively, Article 1(3) (€[…] for NSG and €[…] for Pilkington).

7. However, in line with Article 4(5) of Council Regulation (EC) No 139/2004, on 16 March 2006, the parties made a reasoned submission that the concentration should be examined by the Commission. No Member State expressed disagreement within the defined period.

8. The concentration is therefore deemed to have a Community dimension.

IV. COMPETITIVE ASSESSMENT

Relevant Product Markets

9. The notified merger affects the float glass sector.

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[2] Turnover calculated in accordance with Article 5(1) of the Merger Regulation and the Commission Notice on the calculation of turnover (OJ C66, 2.3.1998, p25). To the extent that figures include turnover for the period before 1.1.1999, they are calculated on the basis of average ECU exchange rates and translated into EUR on a one-for-one basis.

10. NSG and Pilkington both manufacture and sell float glass products. Raw float glass is the trade term for perfectly flat, clear glass. The term "float" glass derives from the production method, introduced by Sir Alexander Pilkington in the late 1950´s by which the most part of flat glass is currently manufactured. Float glass is produced by floating a continuous stream of molten glass onto a bath of molten tin. The molten glass spreads onto the surface of the metal and produces a high quality, consistently level sheet of glass that is later heat polished. The glass has no wave or distortion.

11. Float glass is used predominantly by the construction (general trade) and automotive industries, with the remainder of the market being used in the manufacture of furniture and white goods.

12. In line with previous Commission decisions, the parties consider that the float glass sector may be described in terms of two levels[3]; a) the upstream production of raw float glass (Level 1) and b) the downstream processing of raw float glass before sale and distribution to end users (Level 2). They submit that Level 2 can be further divided into distinct sectors; automotive and general trade.

13. The automotive trade can be divided into (a) automotive glass supplied to original equipment manufacturers ("OEMS") and (b) automotive glass supplied to the independent aftermarket ("IAM").

    a. OEMs

    Automotive glass supplied to OEMs is glass produced for use in the automotive industry supplied to vehicle manufacturers. Increasingly, glazing systems rather than a simple piece of glass are being supplied to vehicle manufacturers to simplify the vehicle assembly process. Much of this activity is undertaken once the glass has been laminated or tempered.

    NSG also provides "glazing systems" to its customers, but not in the EEA as NSG has no OEM customers in Europe.

    b. IAM

    Automotive glass supplied to the IAM is glass produced for use in the automotive industry supplied to the independent aftermarket. Aftermarket products must, by their nature, replicate exactly the original equipment product which they replace.

14. According to the parties, general trade can be divided into; (a) unprocessed glass; (b) coated glass (double glazing); (c) laminated glass (safety glass) and (d) silvered glass (mirrored glass).

    a. Unprocessed Glass

    Unprocessed glass is physically the same as raw float glass. However, as sold to the general trade sector, value is added by *inter alia* cutting the raw float glass to size. Relative to other glazing options, single glazing with clear glass allows the highest transfer of energy whilst permitting the highest daylight penetration.

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[3] This is in line with Case No IV/M.358 – Pilkington-Techink/SIV and Case No M.1230, Glaverbel/PPG.

b. Coated Glass

Coated glass is made when modified properties are produced from the basic glass by means of surface coatings. Glass can be coated on-line in the float process as the ribbon of glass is formed in the float glass bath, or off-line after the float glass has been manufactured. The technology uses chemical vapour deposition to apply a microscopically thin coating on the glass at a temperature of about $600^{o}C$.

c. Laminated Glass

Laminated glass is made by sandwiching an inner plastic laminate layer (Polyvinyl Butyral) between the two glass pieces to form laminated glass. When broken, the glass remains in place by sticking to the vinyl interlayer and is therefore less likely to cause injury. Laminated glass can also provide acoustic insulation and filters out the majority of UV radiation in sunlight. It is used in automotive windscreens.

d. Silvered Glass

Silvered glass is polished glass with a reflective coating of silver deposited on the back.

15. This is not entirely in line with the market definition previous accepted by the Commission in 1998,[4] which found the following separate relevant product markets for the general trade sector: unprocessed glass (single glazing), sealed units (double or multiple glazing), silvered glass (mirrors), laminated glass (safety glass) and toughened glass (safety glass).

16. While this description of the relevant product markets in the general trade sector may have been appropriate in 1998, the parties consider that the market definition accepted at that point in time does not represent an accurate picture of the general trade sector today. The product market definitions submitted by the parties to the present case differ insofar as sealed units and toughened glass are excluded and are replaced by coated glass.[5]

a. *Sealed units*

The term "sealed units" was previously used to describe glass units used for double glazing. The parties submit however, that the production of sealed units is, in fact, an activity which is downstream to the production of unprocessed float, coated and laminated glass, carried out by a large number of sealed unit manufacturers. Sealed units consist of two panes of glass which are separated by dry air or other gases in a hermetically sealed unit. The layer of air between the two panes acts as an insulator.

b. *Toughened glass*

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[4] *Glaverbel/PPG*, Case No M.1230, which followed the Commission's decision in *Pilkington-Techink/SIV*, Case No IV/M.358.

As with sealed units, the parties submit that toughened glass is an activity which is downstream to the production of float, coated and laminated glass manufactured for the general trade sector. It is produced as a result of a toughening process which is carried out by a large number of "tougheners", which effectively heat-treat the glass once it has been cut to size. As such, the parties consider that it is not appropriate to include toughened glass in the relevant product market at the level of production in consideration.

c. *Coated glass*

Coated glass is manufactured on a float line or off-line coater (i.e. at the same level of production as unprocessed or laminated glass). The use of coated glass has increased considerably since the last relevant Commission decision, as building regulations in several European countries now require the use of energy efficient coated glass in new buildings and, in some cases, in replacement windows. The parties note that the term "sealed units" was used in the Glaverbel decision to describe glass used for double glazing. However, they submit that the production of sealed units is downstream to coated glass (and other glass), which is used for double glazing. As such, the parties consider it more accurate to refer to coated glass in the description of the relevant product market at the level of production in consideration.

17. Pilkington is also active in the manufacture and supply of rolled and wired glass. The manufacture of these products is distinct from that of float glass. The rolling process makes patterned, figured and wired glass products. Semi-molten glass is squeezed between metal rollers to produce a ribbon with controlled thickness and surface pattern. The wiring process involves steel wire mesh being sandwiched between two separate ribbons of glass in semi-molten state and passed through a pair of consolidating rollers which may also impress a pattern on the glass. The rough cast surface may be polished to obtain clear transparency. It uses include fire resistance and safety glass.

18. Of the levels, sectors and sector divisions mentioned, only the Level 2 Automotive IAM product market would be affected in the EEA in this case.

19. Ultimately, the definition of the relevant product markets can be left open, as regardless of the precise market definition, the transaction will not give rise to competition concerns.

Relevant Geographic Markets

20. The parties submit, in line with previous Commission decisions[6], that the geographic market for each of the relevant product markets identified above is EEA-wide in scope.

Level 1 – Raw Float Glass

21. In particular, it is submitted that float glass (level 1) is bulky, fragile and expensive to transport relative to its value. Generally, it is not economically viable to transport float

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6 *Pilkington-Techink/SIV* , Case No IV/M.358 and *Glaverbel/PPG* , Case No M.1230.

glass across distances of greater than 600km.While there is trade of float glass across the EEA, transportation costs limit the scope of the geographic market to the EEA region.

Level 2 – General Trade

22. There is considerable trade across the EEA within the *general trade* sector. However, the parties submit that transportation costs, which account on average for approximately 10% of the total glass cost, limit the scope of the market to the EEA. Despite relatively high transportation costs, general trade products are usually transported across Europe, although travel distances by road tend not to be greater than 600km. Imports of general trade glass into the EEA account for approximately 5% of the total general trade sales within the EEA.

Level 2 – Automotive

23. Within the *automotive sector*, the parties consider that the geographic scope of the market is EEA-wide for both OEM and IAM. Within the EEA, average transportation costs for glass sold to the automotive trade account for approximately 4% of sales value and 5% of total costs.

24. For *OEM*, the parties argue the fact that customers need technical support from their suppliers and therefore generally rely on suppliers within the EEA. On the other hand, whilst it was common for manufacturers to serve European OEM customers from within the same country throughout the 1980´s and early 1990´s, the parties submit that this is no longer representative of current business models. Pilkington also estimates that imports into the EEA of OEM glass account for approximately 5% of glass sold in the region.

25. For *IAM*, Pilkington estimates that 30% of IAM glass by volume and value is imported into the EEA. However, because of the high cost base in the EEA, the existence of local duties/tariffs and the fact that car models vary from one region to another, there are few exports from the EEA to other regions of the world. Exports of IAM glass outside the EEA region are estimated to be approximately 5% of IAM glass produced in the EEA.

Rolled and Wired Glass

26. Similarly, for rolled and wired glass, the parties submit that the relevant geographic market is the EEA. More particularly, high transport costs and the fact that rolled and wired glass is bulky and of relatively low value make it uneconomical to transport long distances and therefore to import these products from outside the EEA.

27. Ultimately however, the definition of the relevant geographic markets can be left open, as regardless of the precise market definition, the transaction will not give rise to competition concerns.

Assessment

28. The proposed transaction does not lead to a structural change on the float glass markets in the EEA. The parties are active in different geographical regions: NSG is predominantly active in Japan and Asia and Pilkington is predominantly active in Europe and the US. There are therefore very limited horizontal overlaps between the parties within the EEA.

29. In any case, the market shares of NSG within the EEA and consequently any increments which would result from the transaction are relatively small.

Level 1 – Raw Float Glass

30. At level 1, NSG does not manufacture or sell raw float glass in Europe. There is therefore no horizontal overlap in the raw float glass sector and as such it is not an affected market.

Level 2 – General Trade

31. NSG has no production facilities in respect of glass for general trade in Europe. However, according to the parties, in 2005, it made *sales* of €[…] through NSG Europe of unprocessed float glass, […].

32. On the basis of the parties´ best estimates, in the *general trade segment*, within the EEA the acquisition would give rise to an increment of [<1]% by volume and [<1]% by value. On the narrower segment of *unprocessed float glass*, the increment would be [<1]%. Therefore, there is no horizontal overlap in this market.

33. The parties submit that the relationship between NSG and Pilkington in the general trade sector is vertical.[7] On an EEA basis, Pilkington holds a market share of [20-25]% by volume and [20-25]% by value in this segment. On the narrower segmentation of unprocessed float glass, Pilkington holds [20-25]% of the market. As such, general trade is not therefore an affected market.

34. In any case, Pilkington and NSG continue to face strong competition in the general trade sector from St Gobain with [25-30]%, Glaverbel [15-20]% and Guardian [15-20]% of the EEA market in 2005. Post-merger, Pilkington/NSG´s combined market share would be [20-25]% by volume and [20-25]% by value.

Level 2 – Automotive

35. At level 2, NSG does not manufacture or sell automotive glass to *OEMs* in Europe. There is therefore no horizontal overlap in the OEM sector and as such it is not an affected market.

36. NSG makes sales to the *IAM* through its Belgian subsidiary, NSG Europe. On the EEA market for the IAM, in 2005, Pilkington had a market share of [30-35]% by value and volume, while NSG had a market share of [1-5]% by value and [1-5]% by volume. On a hypothetical worldwide market, Pilkington has a market share of approximately [20-25]% by volume and value respectively. On a worldwide market, NSG has a market share of approximately [1-5]% by volume or value. As such, on any considered market there is a horizontal overlap and this is therefore an affected product market.

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7 Pilkington on-sells the glass it purchases from NSG.

Level 2 – IAM

Table 1 – IAM Market

Market Shares by Value *[8]

Competitors	***EEA***	***WORLD WIDE***
Pilkington	[30-35%]	20-25%
St Gobain	[20-25%]	10-15%
AGC	[10-15%]	*
JAAN	[5-10%]	*
ASG	[5-10%]	*
Guardian	[5-10%]	*
NSG	[1-5%]	1-5%
Asahi	*	10-15%
PPG	*	10-15%
Visteon	*	5-10%
Fuyoa	*	1-5%
Others	[10-15%]	10-43%

37. Post-merger, the combined parties would continue to face effective competition on the EEA market. Pilkington is the leading supplier in the EEA with market shares of [30-35]% by both value and volume respectively. It is followed by St. Gobain with [20-25]% and thereafter by several smaller players, including AGC [10-15]%, JAAN [5-10]%, ASG [5-10]% and Guardian [5-10]%. According to the figures submitted by the parties, post-merger the combined market share of the parties in the IAM market at the EEA level would be [30-35]% by volume and [30-35]% by value, giving rise to a small increment of [1-5]% by volume and [1-5]% by value. Thus, Pilkington´s position as market leader would remain unchanged.

38. On any potential worldwide market, post-merger the combined parties would also face effective competition. On a global market, according to market estimates Pilkington is the leading player (20-25%), followed by St. Gobain (10-15%), Asahi (10-15%), PPG (10-15%) and thereafter becomes more fragmented, with various market players holding much smaller market shares. Post-merger the combined entity would have a market share of between 21-30%. Given the small increment (1-5% NSG), the merger would not however increase to a significant extent the likelihood of co-ordinated behaviour between the largest market players.

39. Pilkington currently has high market shares in the IAM market in several member states; [40-45]% Belgium, [25-30]% France, [25-30]% Germany, [45-50]% Netherlands and [35-40]% UK. However, with the addition of NSG´s sales in those countries, the increments would be very small; [<2]%, [<5]%, [<1]%, [<1]% and [<1]% by value respectively.

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8 Where appropriate, included in market share given for "others".

Rolled and Wired Glass

40. While Pilkington is active in the manufacture and supply of rolled and wired glass, NSG does not manufacture or sell either rolled or wired glass in the EEA. There is therefore no horizontal overlap in these sectors and as such they are not affected markets.

41. There are no further vertical relationships between the parties, since neither party is engaged in business activities in a product market, which is upstream or downstream of a product market in which any other party to the concentration is engaged, and in which any of their individual or combined market shares at either level is 25% or more.

42. Hence, the notified transaction does not significantly impede competition in the relevant markets.

IV. CONCLUSION

43. For the above reasons, the Commission has decided not to oppose the notified operation and to declare it compatible with the common market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of Council Regulation (EC) No 139/2004.

For the Commission
signed
Neelie KROES
Member of the Commission