



PILKINGTON AUTOMOTIVE FINLAND OY PILKINGTON MARINE
 P.O.Box 80
 23801 LAITILA
 Finland

DET NORSKE VERITAS OY/AB
 DNV Maritime, Region Nordic
 Countries, the Baltic and Germany
Maritime Services Management
East Baltic, Finland
 Aurakatu 18
 20100 Turku
 Finland
 Tel: +358 9 681 691
 Fax: +358 2 251 7310
 http://www.dnv.com

Att: Teuvo Nykänen

Your ref.: Renewal of MED-B-2130 Our ref.: MNBF1220/JLIN/344.1-001756-J-3 Date: 2009-02-27

**PILKINGTON AUTOMOTIVE FINLAND OY / PILKINGTON MARINE, FINLAND,
 RENEWAL OF MED-B-2130, Id.No. 344.1-001756**

Dear Sir,

Reference is made to your application form dated 4 February 2009.

Please find enclosed the following certificate:

- EC Type Examination Certificate **MED-B-5072**,
 with 5 years validity (replacing MED-B-2130).

Upon receipt of the

- Assessment Checklist Production
- Report from Audit including Nonconformity notes if any,

we will issue a QS – Certificate of Assessment – EC (Module D or E) or Certificate of Conformity – EC (Module F). Thereafter, you may start marking the product.

Our invoice will be sent later on.

Yours faithfully
 for DET NORSKE VERITAS OY/AB

Tapio Tuominen
 District Manager
 Maritime Services Turku

Jussi Lindström
 for Jussi Lindström
 Senior Surveyor

Enclosure: Certificate MED-B-5072

Corporate Headquarters: Det Norske Veritas AS, 1322 Høvik, Norway - www.dnv.com

9261656/DNV - Job.id.: 344.1-001756-1



DET NORSKE VERITAS

EC TYPE-EXAMINATION CERTIFICATE

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2002/75/EC, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This certificate is issued by Det Norske Veritas under the authority of the Government of the Kingdom of Norway.

CERTIFICATE NO. **MED-B-5072**

This is to certify that the
Windows and side scuttles

with type designation(s)
A-0 class window

Manufacturer

PILKINGTON AUTOMOTIVE FINLAND OY / PILKINGTON MARINE
LAITILA, Finland

is found to comply with the requirements in the following Regulations/Standards:

Annex A.1, item No. A.1/3.25 and Annex B, Module B in the Directive SOLAS 74 as amended, Regulation II-2/9.4.1.3, MSC/Circ.847 and IMO FTP Code.

Further details of the equipment and conditions for certification are given overleaf.

Høvik, 2009-02-13
for Det Norske Veritas AS

Eivind Mykland
Head of Department



Notified Body No.: **0575**

DNV local office:
DNV Turku



This certificate is valid until
2014-02-13

Amir Dzaferi
Surveyor



Notice: The certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this certificate invalid. The product liability rests with the manufacturer or his representative in accordance with Council Directive 96/98/EC, as amended.
The Mark of Conformity may only be affixed to the product and a Declaration of Conformity may only be issued when the production/product assessment module referred to in the council directive, is fully complied with.



Certificate No.: MED-B-5072
Item No.: A.1/3.25
Job ID: 344.1-001756-1

Product description

"A-0 class window"

consisting of window panes in a steel frame with vertical mullion member(s). The glass is composed of (from the expected exposed side to the expected unexposed side) 6 mm toughened glass, 6 mm air gap and 10 mm clear or tinted toughened glass, 0.5 mm interlayer and 6 or 8 mm Pyroswiss Extra. Overall glass thickness is at least 30 mm. Total window thickness including frame is approx. 150 mm.

The main part of the window frame consist of a main steel profile, 120 x 80 x 4 mm (w x d x t), inner steel profile, 40 x 20 x 1.5 mm (w x d x t) mm, glass retainer plate, 110 x 35 x 6 mm, and glazing panel, 80 x 6 mm. Paroc mineral wool insulation is used between the frame and the bulkhead. The frame is bolted to the bulkhead. For details, see drawing (figure 2) in test report Warres No. 113769.

Max. size window: 2240 x 1945 mm (w x h).
Max. glass pane sizes: 1030 x 1815 mm (w x h).

Application/Limitation

Approved for use as an integrated part of fire retarding bulkheads of class A-0.
Fire from inside (against insulated side of bulkhead/ float glass side).

The window has only been evaluated with respect to fire technical properties (e.g. strength requirements have not been considered). Arrangement and location of any window is subject to approval from relevant authority in each case.

Any insulation material and surface material used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Examination documentation

Test report Warres No. 113769 dated 2 August 2000 and Assessment report WFRC No. C114614 dated 11 July 2000 from Warrington Fire Research Centre, UK.

Tested according to IMO FTP Code Part 3 (IMO Res. A.754(18)).

Marking of product

The product or packing is to be marked with name of manufacturer, type designation, fire-technical rating and Mark of Conformity (see page 3).

Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a of Certificate Conformity.

