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

Att: Teuvo Nykänen

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

Enclosure: Certificate MED-B-5072

Corporate Headquarters: Det Norske Veritas AS, 1322 Havik, Norway - www.dnv.com
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:
Further details of the equipment and conditions for certification are given overleaf.

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

Elvind Mykland
Head of Department

Notified Body No.: 0575

DNV local office:
DNV Turku

This certificate is valid until
2014-02-13

Amir Dzafarevi
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 90/37/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.
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, 8 mm air gap and 10 mm clear or tinted toughened glass, 0.5 mm interlayer and 6 or 8 mm Pyrowise 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 Warre 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 been 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


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.