Lloyd's Register

CERTIFIED COPY

CERTIFICATE OF FIRE APPROVAL

This is to certify that

The product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer	Den Braven Sealants BV
Address	Postbus 194 4900 AD Oosterhout Denariusstraat 11 4903 RC Oosterhaut The Netherlands,
Type	**MATERIAL HAVING LOW FLAME SPREAD CHARACTERISTICS & NOT CAPABLE OF PRODUCING EXCESSIVE QUANTITIES OF SMOKE & TOXIC PRODUCTS OF COMBUSTION**
Description	Fire Resisting Material - Type "Zwaluw Pyrocryl" (Nominal Thickness 8mm)
Specified Standard	IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 2 and Part 5 IMO MSC/Circ.1120

The attached Design Appraisal Document forms part of this certificate.
This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

Date of issue	2 May 2012	Expiry date	1 May 2017
Certificate No.	SAS F120173	Signed	Groningen Office Lloyd's Register EMEA Lloyd's Register
Sheet No	1 of 2	Name	B. McDonald Surveyor to Lloyd's Register EMEA A Member of the Lloyd's Register Group

Note:

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid Certificate.

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Document number
SAS F120173

Issue number
1

DESIGN APPRAISAL DOCUMENT

Date	Quote this reference on all future communications
2 May 2012	LDSO/SFS/TA/BM

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F120173

This Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Laboratoire National D'essais, France, Fire Test Report No. 9070306 CEMAT/3, dated 10 May 2000 and A030423 CEMAT/2, dated 17 April 2000.

CONDITIONS OF CERTIFICATION

1. When applied to a steel substrate.
2. The calorific value for the product was determined using the method in ISO 1716 and found to be 12.874MJ/kg.
3. Smoke and toxicity is satisfied by meeting the total heat release (Q_t) and peak heat release rate (q_p) as stated in IMO Fire Test Procedures Code, Annex 2, Section 2.2.
4. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype.

PLACE OF PRODUCTION

Den Braven Sealants BV,
Postbus 194,
4900 AD Oosterhout,
Denariusstraat 11,
4903 RC Oosterhaut,
The Netherlands,

Bruce McDonald
Statutory Fire & Safety Manager
London Design Support Office
Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).