

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Sandwich Adhesives**with type designation(s)
Spabond 568

Issued to

Gurit (UK) Ltd.
Newport, Isle Of Wight, United Kingdomis found to comply with
DNV GL class programme DNVGL-CP-0085 – Type approval – Sandwich adhesives**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Hamburg** on **2019-01-25**for **DNV GL**This Certificate is valid until **2024-01-24**.DNV GL local station: **Hamburg Materials & Welding**Approval Engineer: **Guido Michalek****Thorsten Lohmann**
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Spabond 568; An epoxy adhesive system for bonding core materials.

The following properties have been verified by type testing:

Property	Test Method	Spabond 568		
Tensile strength, +23°C	ASTM C297	9.0	MPa	min.
Tensile strength, +70°C	ASTM C297	6.9	MPa	min.
Water resistance: Retained strength after 4 weeks in sea water	ASTM C297	100	%	
Tensile strength, -10°C	ISO 527	16.8	MPa	min.
Tensile strength, 0°C	ISO 527	15.9	MPa	min.
Tensile strength, +23°C	ISO 527	15.4	MPa	min.
Tensile strength, +70°C	ISO 527	1.2	MPa	min.
Fracture elongation, -10°C	ISO 527	2.01	%	min.
Fracture elongation, 0°C	ISO 527	2.11	%	min.
Fracture elongation, +23°C	ISO 527	2.81	%	min.
Fracture elongation, +70°C	ISO 527	10.15	%	min.

Remark:

The minimum values stated are the mean of test results minus two standard deviations.

Application/Limitation

The use in hull structures will be evaluated during approval of classified objects.

Type Approval documentation

1. Renewal of Type Approval Certificate No. K-4188.
2. Letter from Gurit of 2014-04-17, Application for Type Approval of 2014-05-19, Technical Data Sheet/Brochure for Spabond 368 Epoxy Adhesive System and Material Safety Data Sheets for SP 368 Resin and SP 368 Extra Slow Hardener, Certificate of Test and ISO 9001 Certificate.
3. Emails from Gurit of 2014-06-25 and 2014-07-11.
4. Assessment Report from DNV GL Southampton of 2014-06-25, including findings and responses from Gurit.
5. Email from DNV Southampton of 2010-04-28, including:
 - Application for Type Approval form dated 2010-04-27 and
 - Survey Report from DNV Southampton of 2010-04-27.
6. Email from DNV Southampton of 2010-03-25, including:
 - Product Data Sheet for Spabond 368 and
 - Application for renewal of type approval of 2010-03-16
7. Letter from DNV Southampton of 2003-09-05, including:
 - Gurit (UK) Ltd. (SP Systems) document "Spabond 740 (Corebond Epoxy Adhesive) – D.N.V. Type Approval in accordance with DNV-TAP 1-501-11 (Jan 1999)", which include product information, test results, etc.
8. Email from Gurit (UK) Ltd. (SP Systems) of 2003-11-14, including additional test results.
9. Email from DNV Southampton of 2003-11-21, including additional test results.

Job Id: **262.1-029586-1**
Certificate No: **TAK00001HG**

Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**.

Assessed production site

Gurit (UK) Ltd.
St. Cross Business Park
Newport IW
PO30 5WU
United Kingdom

Periodical assessment

A production site with a valid Approval of Manufacturer (AoM) certificate for material in question is exempted from the obligation concerning retention and renewal assessments.
For manufacturer without a valid AoM a periodical assessment after 2.5 years and at renewal after 5 years is required.

Remarks

This certificate supersedes the type approval TAK00000T3.

END OF CERTIFICATE