

TYPE APPROVAL CERTIFICATE

Certificate no.:
TAK00001HG
Revision No:
1

This is to certify:

that the **Sandwich Adhesives**

with type designation(s)
Spabond 568

issued to

Gurit (UK) Ltd.
Newport, Isle Of Wight, United Kingdom

is found to comply with

DNV class programme DNV-CP-0085 – Type approval – Sandwich adhesives

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Hamburg** on **2024-05-02**

This Certificate is valid until **2029-05-01**.

DNV local unit: **UK & Ireland CMC & VMC**

Approval Engineer: **Joachim Rehbein**

for **DNV**



Digitally Signed By:
Christian Wildhagen
Location: DNV Hamburg,
Germany

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



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.

Any significant changes in design and / or quality of the material will render the approval invalid.

Type Approval documentation

Renewal of **TAK00001HG** 2024:

1. PDS Spabond 568 1-0224;
 2. SDS Spabond 568 Resin ver. 3.0 of 2022-12-20;
 3. SDS Spabond 568 Extra Slow Hardener ver. 4.0 of 2022-12-20;
 4. Approval of manufacturer/shop approval certificate SA-DNV-SE-0436-08364-0 Gurit Newport valid until 2024-02-28 (renewal pending);
 5. Test lab certificate LA-DNVGL-SE-0436-07715-0 Gurit Newport Lab Approval of 2021-08-31;
 6. Test report no 1114 v1.3 issued by Gurit (UK) of 2024-02-13.
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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.

Tests carried out

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



Job ID: **262.1-029586-3**
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Assessed production site

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

Periodical assessment

The scope of the Periodical Assessment is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

Periodical assessments (for Certificate Retention / Certificate Renewal) shall be performed according to DNV-CP-0338.

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.

This certificate is only valid if required Periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>.

END OF CERTIFICATE