

TYPE APPROVAL CERTIFICATE

Certificate no.:
TAK00001CH
Revision No:
1

This is to certify:
that the Epoxy Systems

with type designation(s)
AMPREG 31

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

is found to comply with
DNV class programme DNV-CP-0089 – Type approval – Epoxy resin systems

Application:
Laminating resin for construction of laminates made of fibre reinforced plastics.

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

Issued at **Hamburg** on **2024-02-06**

This Certificate is valid until **2029-02-05**.
DNV local unit: **UK & Ireland CMC & VMC**

Approval Engineer: **Joachim Rehbein**

for **DNV**



Digitally Signed By:
Stefan Röhr
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

AMPREG 31: Two component epoxy resin system.

Approved variants

Epoxy resin AMPREG 31 with following hardeners:

- Fast Hardener
- Standard Hardener
- Slow Hardener
- Extra-slow Hardener

Material Properties

Properties	Test Method	Ampreg 31	Fast Hardener	Standard Hardener	Slow Hardener	Extra-slow Hardener	Unit
Density at 21°C	ISO 1183-1B	1.00 – 1.20	0.90 – 1.10	0.95 – 1.15	0.90 – 1.10	0.85 – 1.05	g/cm ³
Viscosity at 25°C	Brookfield RVT	2000 - 2800	300 – 500	100 - 150	20 - 30	5 - 15	mPa·s
Gel Time at 25°C	Tecam	N/A	25.0 – 35.0	60.0 – 70.0	200.0 – 220.0	260.0 - 300.0	mins

Type Approval documentation

TAK00001CH Revision 1:

- Application for type approval TAA 901 of 2023-05-12;
- DNV GL Shop Approval SA-DNV-SE-0436-08364-0 valid until 2024-02-28, issued 2022-01-05;
- LA-DNVGL-SE-0436-07715-0 Gurit Newport Lab Approval;
- Test report 1052 v0.22 issued by Gurit Newport Lab of 2023-08-21;
- Technical data sheet;
- Safety data sheets;
- Certificate of analysis.

TAK00001CH:

- Technical Data Sheet
- Material Safety Data Sheet
- Test Report No. 11647 issued by the DNV GL approved testing laboratory of Gurit (UK) (Approval No. AOSS0000DHK), dated on 2018-09-19.
- Approval of Manufacturer (Approval No. AMPM0000023) valid until 2021-02-28.
- Quality assurance/control documentation

Limitation

The resin complies with the applicable requirements of DNV and is compatible to the fibres, adhesives and core materials.

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

Assessed production sites

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

Gurit (Spain) S.A.
 Polígono Industrial Romica, Calle 4, Parcela 11C
 02080 Albacete
 Spain

Periodical assessment

Periodical assessments are required after two years and after 3.5 years (retention survey) and for renewal after 5 years (renewal survey). Refer to DNV-CP-0338, Sec.4.

A production site with a valid Approval of Manufacturer (AoM) certificate for material in question is exempted from the obligation concerning periodical and renewal assessments.

This certificate is only valid if required 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