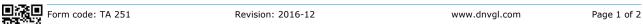


Certificate No: **TAK00001CH** 

# TYPE APPROVAL CERTIFICATE

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	
s found to comply with DNV GL class programme DNVGL-CP-0089 – Type appr	oval – Epoxy resin systems
Application :	
Laminating resin for construction of laminates made o	f fibre reinforced plastics.
ssued at <b>Hamburg</b> on <b>2018-10-04</b>	
his Certificate is valid until <b>2023-10-03</b> .	for <b>DNV GL</b>
DNV GL local station: Hamburg Materials & Welding	
Approval Engineer: <b>Guido Michalek</b>	
Approval Engineer. Guido Michalek	Thorsten Lohmann
	Head of Section





Job Id: **262.1-029901-1** Certificate No: **TAK00001CH** 

# **Product description**

Two component epoxy resin system.

#### **Approved variants**

Epoxy resin AMPREG 31 with following hardener

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

## Type Approval documentation

- 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

# **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/cm³
Viscosity at 25°C	Brookfied RVT	2000 - 2800	300 - 500	100 - 200	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

#### Limitation

The resin complies with the applicable requirements of DNV GL 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 site

Gurit (UK) Ltd. Gurit (Spain) S.A.

St. Cross Business Park Polígono Industrial Romica, Calle 4, Parcela 11C

Newport PO30 5WU 02080 Albacete

United Kingdom Spain

#### **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

None

END OF CERTIFICATE

Form code: TA 251 Revision: 2016-12 www.dnvgl.com Page 2 of 2