

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Glass Fibre Products

with type designation(s)
SE 2020 - Series

Issued to

3B-Fibreglass S.P.R.L.
Battice, Belgium

is found to comply with
DNV GL class programme DNVGL-CP-0082 – Type approval – Glass fibre rovings

Application :

Manufacturing of fabrics and/or fibre reinforced plastics.

Issued at **Hamburg** on **2018-12-11**

for **DNV GL**

This Certificate is valid until **2023-12-10**.

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

Direct ECR Glass Roving SE 2020 for Epoxy Resin.

Approved variants

Properties	Test Method	SE 2020 300	SE 2020 600	SE 2020 1200	SE 2020 2400	SE 2020 4800	Unit
Density	ISO 1889	300±25	600±36	1200±72	2400±144	4800±288	TEX
Filament Diameter	ISO 1888	16±1	17±1	17±1	17±1	24±1	µm
Loss on Ignition	ISO 1887	0.55±0.20	0.55±0.12	0.55±0.12	0.55±0.12	0.55±0.12	%
Moisture Content	ISO 3344	≤0.15	≤0.15	≤0.15	≤0.15	≤0.15	%

Limitation

The roving complies with the applicable requirements of DNV GL and is compatible to the laminating resin. Any significant changes in design and / or quality of the material will render the approval invalid.

Type Approval documentation

- Technical Data Sheet
- Test Report No. B552/11, issued by the DNV GL approved testing laboratory of IMA Dresden (Approval No. AOSS0000DGD), dated 2012-10-23.
- Workshop Inspection Report issued by DNV GL Hamburg
- Quality Assurance Documentation

Assessed production sites

3B-Fibreglass S.P.R.L.
Rue de Maestricht 67
4651 Battice
Belgien

3B-Fibreglass S.P.R.L.
Colvale, Bardez
Goa, 403513
India

3B-Fibreglass AS
Tollensveien 60, Tollnes
4795 Birkeland
Norway

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.

END OF CERTIFICATE