

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Glass Fibre Products**

with type designation(s)

**B-(S-V-) E-Series, X-(S-V-) E-Series**

Issued to

**SAERTEX GmbH & Co. KG****Saerbeck, Germany**

is found to comply with

**DNV GL class programme DNVGL-CP-0467 – Type approval – Uni- and multi-axial multi-ply fabrics made of glass fibres****Application :****Manufacturing of FRP laminates.**This Certificate is valid until **2023-07-03**.Issued at **Hamburg** on **2018-07-04**DNV GL local station: **Hamburg Materials & Welding**Approval Engineer: **Guido Michalek**for **DNV GL**

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**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.

Job Id: **262.1-029207-1**  
Certificate No: **TAK00000N9**  
Revision No: **1**

## Product description

Biaxial fabric made of E-Glass with/without CSM\*

Layer structure: ( $\pm 45^\circ$ ) or ( $0^\circ/90^\circ$ )

Mass per unit area	Fabric $\pm 45^\circ$ :	150-2700 g/m <sup>2</sup>
	Fabric $0^\circ/90^\circ$ :	200-3900 g/m <sup>2</sup>
	CSM:	20-1200 g/m <sup>2</sup>

Max. width: 3810 mm

\*) Chopped Strand Mat for this product is an option.

## Limitation

The fabric 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. 1.1/26010/539-2002e issued by Institut für textile Bau- und Umwelttechnik GmbH in Greven, dated 2004-01-13.
- Quality Documentation

## Assessed production sites:

Saertex GmbH & Co.KG  
Brochterbecker Damm 52  
48369 Saerbeck  
Germany

Saertex France SAS  
2 lot Parc d'activities d'Arandon  
38510 Arandon  
France

Saertex South Africa (PTY) Ltd.  
25 Boland Street Daljosafat  
RSA-7624 Paarl  
South Africa

Saertex USA, LLC.  
12200 Mt. Holly-Huntsville Rd.  
Suite A  
Huntsville, NC 28078  
USA

Saertex India Private Limited  
S.No. 282, Mann Village Mulshi  
Pune 411 057  
India

Saertex Portugal, Unipessoal Lda  
Parque Empresarial de Lanheses  
Fracao 5B  
Estrada do Engenho 320  
4925-432 Lanheses  
Portugal

Saertex Reinforcements (Dongying) Co., Ltd.  
No. 102, Yihe Road, Dongying Economic Development Zone  
Shandong Province, 257091  
P.R. China

## 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