

APPROVAL OF SERVICE SUPPLIERS

This is to certify that

SAERTEX GmbH & Co. KG

Saerbeck, Germany

is granted acceptance for

**Mechanical and analytical testing , in accordance with Class Programme
DNVGL-CP-0484.**

This service supplier certificate will be accepted for use with all rule sets published by DNV GL.
See the following page(s) for details regarding application.

This Certificate is valid until **2022-01-21**.

Issued at **Hamburg Materials & Welding** on **2019-01-22**



for **DNV GL**

This document has been digitally signed and
will therefore not have handwritten signatures

Michalek, Guido

Insp. Eng. Materials Technology

This Certificate may be withdrawn if:

1. The service provided has been improperly carried out or the results improperly reported.
2. The surveyor has found any deficiencies in the accepted operating systems of the service supplier.
3. The firm has failed to inform of any major changes having effect on the quality of the service rendered.
4. The conditions listed in the certificate are changed and/or are not fulfilled.



Certificate No: **AOSS0000FBM**

Application:

The certification covers the specific tests and types of tests as listed and described in the annex.

Remarks:

A laboratory inspection was carried out from 09.01. - 10.01.2019. All facilities and the qualification of the personnel in charge of the above mentioned company were found in good order. The audit was based on ISO 17025:2018.

Annex

DNV·GL

to the AOSS0000FBM

Scope of certified tests and types of tests

Test	Test Method
Mechanical and Technological	
Plastics - Determination of tensile properties Part 1: General principles	ISO 527-1
Plastics - Determination of tensile properties Part 4: Test conditions for isotropic and anisotropic fibre-reinforced plastic composites	ISO 527-4
Plastics - Determination of tensile properties Part 5: Test conditions for unidirectional fibre- reinforced plastic composites	ISO 527-5
Fibre-reinforced plastic composites Determination of flexural properties	ISO 14125
Fibre-reinforced plastic composites Determination of compressive properties in the in- plane direction	ISO 14126
Standard Test Method for Compressive Properties of Polymer Matrix Composite Materials Using a Combined Loading Compression (CLC) Test Fixture	ASTM D 6641
Fibre-reinforced plastic composites Determination of apparent interlaminar shear strength by short beam-method	ISO 14130
Carbon fibre thermosetting resin unidirectional laminates Compression test parallel to fibre direction	DIN EN 2850
Fibre-reinforced plastic composites Determination of the in-plane shear stress/shear strain response, including the in-plane shear modulus and strength, by $\pm 45^\circ$ tension test method	ISO 14129
Standard Test Method for In-Plane Shear Response of Polymer Matrix Composite Materials by Tensile Test of a $\pm 45^\circ$ Laminate	ASTM D 3518
Fibre-reinforced plastics - Determination of fatigue properties under cyclic loading conditions	ISO 13003 (Tension – Tension)
Analytical	
Textile-glass-reinforced plastics Prepregs, moulding compounds and laminates - Determination of the textile-glass and mineral-filler content; calcination methods	ISO 1172
Plastics - Methods for determining the density of non-cellular plastics Part 1: Immersion method, liquid pycnometer method and titration method	ISO 1183-1

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Scope of certified tests and types of tests

Textiles - Determination of thickness of textiles and textile products	ISO 5084
Textiles - Reinforcement textiles - Automatic measurement of drapability on non-crimped and woven fabrics for continuous fiber reinforced materials	DIN Spec 8100 (in the style of)
Reinforcement products - Mats and fabrics - Determination of mass per unit area	QM-PA 001 (internal method)
Reinforcement products - Determination of the Yarn-add-in	QM-PA 010 (internal method)

The following personnel are authorised to approve test reports

Carolin Solzbacher

Peter Vojcena

Dr. Paul Kipke

Approved Testing Facility

Saertex GmbH & Co. KG – Prüflabor

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END OF ANNEX