

Statement of Approval



Approval No. **WP 1430007 HH**

The material described below complies with the applicable requirements as given in the Rules and Regulations of Germanischer Lloyd. On this basis the material is

approved as **Carbon Fibre Reinforcement**

for the construction of components provided that the recommendations for use as specified by the producer are observed.

Type **T620SC - 24000 - 50C**

Description **HT Carbon Fibre Roving**

Producer **Toray Carbon Fibers Europe
Route de Lagor
Bassin de Lacq, Pôle 4
64150 Abidos
France**

Normative Reference **Rules for Classification and Construction,
II - Material and Welding Technology
Part 2 Non-Metallic Materials**

Remarks **The approved manufacturing sites are listed in the annex.**

This document consists of this page and a one-page annex which is integral part of the approval.

This Statement of Approval is valid until 2018-01-23.

Hamburg, 2014-01-24

Germanischer Lloyd

Guido Michalek

Joachim Rehbein

Statement of Approval



ANNEX

Approval No. WP 1430007 HH

Date: 2014-01-24

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Reference Technical specifications deposited at Germanischer Lloyd Head Office.

Assessed Documents - Test Report No. B337/09 issued by IMA Dresden, dated 2009-11-30.
- Technical Data Sheet

Fields of Application Construction of FRP laminates of components, on condition that the resins comply with the applicable requirements of the Germanischer Lloyd and are compatible to the fibre reinforcements.

Fibre Properties The following fibre properties verified by testing are average values

Tensile strength	Modulus of elasticity (tension)	Fracture strain	Roving fineness
DIN 65382 [MPa]	DIN 65382 [GPa]	DIN 65382 [%]	DIN 53830 [tex]
4175 (143)	234 (5,9)	1,7 (0,07)	1850

Values within brackets: Standard deviation

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

Remaks This approval covers the production sites in:

- TORAY INDUSTRIES, INC.
1-1, Nihonbashi-Muromachi 2-chome,
Chuo-ku, Tokyo 103-8666
Japan
- Toray Carbon Fibers Europe
Route de Lagor
64150 Abidos
France
- TORAY CARBON FIBERS AMERICA, INC.
2030 Highway 20,
Decatur AL35601
USA

End of Annex

Germanischer Lloyd