TECHNICAL DATASHEET

Substrates – Non-Crimp Quadriaxial

TENRON®

Product description

Non crimped (NCF) Quadriaxial fabric is made of TENRON's continuous filament with 4 layers of unidirectionally placed direct rovings respectively suitable for structural composites whilst absorbing the highest possible loads. The layers are stitched together by a polyester yarn.

Article reference

NCF (NON-CRIMP FABRIC), EX.: **NCF QX BSB3_210. +45.100.1,27.IS65T**

- Batch composition's reference
- Specific surface weight (gr/m²)
- Construction Pattern (fibres orientation)
- Length of roll (m)
- Width of roll (m)
- Sizing reference(*)

Thermal properties (according to DIN ISO 7884)

Melting point
1.560 °C

Transition temperature
730 °C

Softening point
940 °C

Mechanical properties

Impregnated strand (according to ASTM D2343 or ISO 9163:2005:)

- Tensile strength: 3.400 ... 3.600 MPa
- Tensile modulus (Young or E-modulus): 86 ... 97 GPa

Physical properties

Volume density of constituent yarns (according to ASTM C693)
2.600 gr/cm³

Specific surface weight
From 400 up to 1 .200 gr/m²

Thickness
From 0,5 to 3,5 mm

Standard Construction
-45°; 0°; +45°; 90°

Operating thermal range (continuous)

From -200°C up to 850°C

Sizing

Content, % weight (loss of ignition, LOI)
0,4 – 1,5 % (according to customer's request)

Moisture content, % weight
Less than 0,1 %

Resin (matrix) compatibility
Ceramic matrix materials, epoxy, polyester, vinylester, PA, PP, PEEK, BMI, etc..

(*) *see Isomatex Sales department for more information*

Standard Packaging

The rolls are individually labeled and wrapped with stretched plastic film for protection and improved handling.

Standard width (m)

1,27 m

Length (m)

From 100 to 500 m

Weight (kg)

Depending on length and surface weight

Inner diameter of cardboard sleeve (cm)

15 cm (by default)

Benefits of TENRON in end-applications

Please see our website, under “applications”.

Storage and usage conditions

ISOMATEX S.A. recommends storage in a cool and dry warehouse into the original packaging. For an optimal processing we recommend to use the product in ambient conditions (20 - 23 °C, 60 - 65% relative humidity). TENRON roving need to be kept in the workshop at least 24 hours prior to usage.

Sustainability

- ISOMATEX S.A. respects the environmental directives of the **European Union** and is **REACH compliant** (Regulation, Evaluation, Authorisation and Restriction of Chemicals) .
- TENRON is fully and easily recyclable. For more information on **sustainability** and our **LCA**, please see our website and / or contact us.

For more detailed information, please contact the Isomatex Sales Department at **info@isomatex.com** or by phone at the following number: **+32 (0)81.72.86.86**

DISCLAIMER OF LIABILITY

The data presented above is provided solely as a guide in the selection of fibre reinforcement. The information mentioned in this leaflet is based on actual ISOMATEX laboratory data and field test experience. Due to numerous factors in downstream processability that may affect results, we consider this information reliable but do not guarantee its applicability to the user's process or assume any liability arising from its use or performance. The end-user, by accepting the products described herein, assumes the responsibility for thoroughly testing any application to determine its compliance before committing to production. It is important for the end-user to determine the properties of their own commercial compounds when using this or any other fibre reinforcement.

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