

# Fibres

## – Conventional Yarns SE / ME

TENRON®

### Product description

Conventional yarns are twisted strands of continuous filaments. The constituted roving are treated with a sizing, which allows an easy downstream treatment, and which is in compliance with the final application.



### Article reference

#### Multi-End Conventional Yarn, EX.:

MECY BSB3 320-100(10) Z30 IS65T CS03E

- Yarn type \_\_\_\_\_
- Batch composition's reference \_\_\_\_\_
- Nominal linear density in TEX (gr/km) from 70 up to 7200 \_\_\_\_\_
- Nominal linear density in TEX of constituent SE roving (from 70 up to 300) \_\_\_\_\_
- Diameter of virgin (elementary) filaments (µm.) \_\_\_\_\_
- Twist direction (Z or S) with number of tours per meter \_\_\_\_\_
- Sizing reference(\*) \_\_\_\_\_
- Cardboard sleeve with felt surface or milk bottle for external unwinding only \_\_\_\_\_

### Physical properties

#### Volume density (according to ASTM C693)

2.600 g/cm³

#### Poisson ratio

0,24

### Thermal properties (according to DIN ISO 7884)

#### Melting point

1.560 °C

#### Transition temperature

730 °C

#### Softening point

940 °C

### Sizing

#### Content, % weight (loss of ignition, LOI)

0,4 – 1,0 % (according to customer's request)

#### Moisture content, % weight

Less than 0,1 %

#### Resin (matrix) compatibility

Epoxy, polyester, vinylester, PA, PP, PEEK, BMI, etc..

### Mechanical properties

#### Size and dried roving (according to ISO 3341:2000)

- Tensile strength: 66 ..... 80 cN/tex  
(depending on the sizing formulation) :  
1.580 ... 2.000 MPa
- Elongation at break: 2, 10%
- Tensile modulus ( Young or E- modulus):  
90 ... 100 GPa

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

- Tensile strength: 3.400 ... 3600 Mpa
- Elongation at break: 3,5 ... 4,5%
- Tensile modulus (Young or E-modulus):  
86 ... 97 GPa

## Standard Packaging

The standard packaging of twisted yarns includes cylindrical bobbins which are individually labelled and wrapped with stretched plastic film for protection and improved handling.

### Inner diameter of cardboard sleeves (mm)

93,0mm

### Height (mm)

290mm

### Weight (kg)

Commercially available bobbins have a nominal weight up to 10 kg.

## 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**

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