# Felts - Needle-punched

# TENRON®

## **Product description**

Needle-punched felts made of TENRON cut (staple) fibres.



#### **Article reference**

NP-NW (Needle-punched nonwovens), EX.:	NP-NW BS	B3_200(1	1).120.1,	27. IS65T
Batch composition's reference				
- Specific surface weight (gr/m²) -				
– Diameter of virgin (elementary) fibers (μm) –			J	
- Length of roll (m)				
- Width of roll (m) -				
- Sizing reference of constituent filaments (*)				

# **Physical properties**

Volume density of constituent fibres (according to ASTM C693)

2.600 gr/cm<sup>3</sup>

Specific surface weight

From 200 up to 1.600 gr/m<sup>2</sup>

**Constituent filament diameter** 

11 µm

**Coefficient of variation** 

2,5%

Thickness of felts

From 2,3 up to 25,4 mm

**Cut fibres length** 

From 20 up to 100 mm

# Thermal properties (according to DIN ISO 7884)

**Melting point** 

1.560 °C

**Transition temperature** 

730 °C

**Softening point** 

940 °C

# Operating thermal range (continuous)

From -200°C up to 1000°C

# Thermal conductivity ( $\lambda$ ) (according to ISO 10635)

Temperature (°C)	100	200	300	400	500	600	700	800	900	1.000
Thermal Conductivity (W.m-1.K-1)	0,060	0,065	0,080	0,100	0,135	0,175	0,225	0,285	0,355	0,435

## 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

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

#### **Standard Packaging**

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

#### Width (m)

1,27 m

#### Length (m)

Up to 120 m/ mat

#### Weight (kg)

Full package is from 10 to 210 kg/roll

#### 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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Strong by Nature

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