

Technical Data Sheet Woven Fabrics

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General Description

Cordenka[®] rayon woven fabrics are made of man-made cellulose multifilament yarn for technical applications and are available with different weaving types. Besides woven fabrics we also offer Cordenka[®] rayon in form of multifilament yarn and chopped fibers.

Features

- Biobased and biodegradable
- Specified constant properties
- Low resin absorption due to cavity-free filament structure
- Improvement of composite material's
 - ◆ Impact resistance, also at low temperatures
 - ◆ Fatigue behaviour
 - ◆ Dampening

Applications

- Reinforcement and light weight construction for:
 - ◆ Thermoplastics and thermosets
 - ◆ Completely biobased and biodegradable composites
- Vehicle parts, shields, housing for machinery
- Acoustic devices, sports equipment

Sustainability

- Cordenka[®] rayon is composed of cellulose. It is both bio-based and biodegradable.
- Cordenka[®] yarn is certified as follows:



8C032

ASTM
D6866:2016-01



9S0014

DIN EN 13432:200-12
DIN EN 14955:2007-03
NF T 51-800:2015-11



7H0111

- Nearly CO₂ neutral energetic recycling of Cordenka[®] rayon woven fabrics in thermoset composites. In contrast to glass fiber or carbon fiber fabrics, Cordenka[®] rayon woven fabrics can be thermal utilized in common waste incineration plants without any problems.

Storage, Handling and Processing

- **Storage:** Protect CORDENKA[®] products against heat, cold, moisture, direct solar radiation and extreme climatic fluctuations.
- **Processing:** If your process is sensitive to moisture, we recommend drying of Cordenka[®] rayon for two hours at 105 °C. Alternatively, inline drying at higher temperatures (less than a minute) can be applied. During processing, the temperature should be kept below 200 °C and the exposure time at this temperature should not exceed 20 minutes.

Functional Properties

Density	1.5 g cm ⁻³
Moisture content (20 °C, 65 % r.h.)	approx. 13 %
Flammability	approx. 290 °C
Self-ignition	approx. 400 °C
Decomposition	from 175 °C (time dependent)
Chemical reactivity	resistant to most organic solvents, not resistant in alkaline or acidic environment
Smell	odourless
Colour	raw white
Cold water shrinkage	4 – 8 %
Hot air shrinkage	1 – 2 %

Products (selection of constructions)

Material		Cordenka® 700, 2440 dtex	
Width	cm	130	
Thickness	mm	0.4	
Weave		plain	twill 2:2 Z
Commercial weight	nominal g m ⁻²	423	509
Weft	Picks per 10 cm	60	90
	EASF 1.5 kN	%	6.7
	Breaking force	N (5 cm) ⁻¹	3533
	Elongation at break	%	16.1
Warp	Ends per 10 cm	100	100
	EASF 1.5 kN	%	6.7
	Breaking force	N (5 cm) ⁻¹	5437
	Elongation at break	%	19.0

Development types, technical data subject to change. Slight variations in colour within a fabric are typical.

Packaging

Package Type: cylindrical rolls					
weave	Package Weight kg	Fabric length m	Tube Dimension L/Inner- Ø mm	Rolls per Pallet	Pallet Weight kg
plain	28	50	1450/76	7	196
twill 2:2 Z	34	50	1450/76	7	238
twill with pores	28	50	1450/76	7	196

Further information

phone: +49 60 22 81 3264
mail: sales@cordenka.com
web: www.cordenka.com

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