FRP

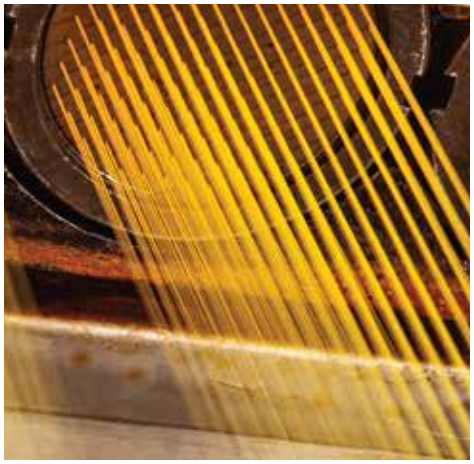
Flame Retardant Polyester Yarns

TURKTEX®

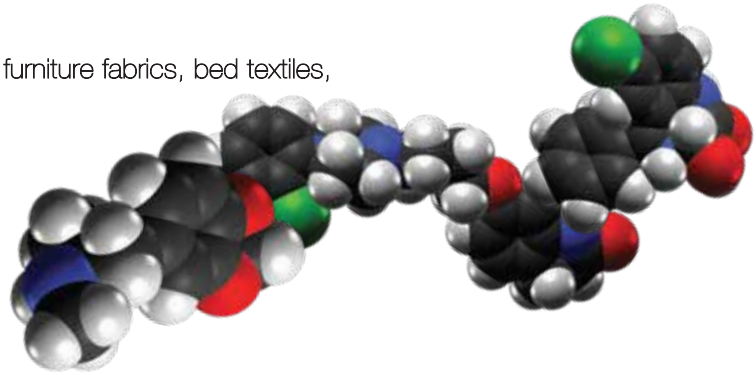
FRP is permanent Flame Retardant Polyester group of yarns. Permanent Flame Retardant properties are firmly anchored in the molecular chain of the FRP fiber and cannot be affected by external factors.

The flame-retardant properties of FRP are preserved over time and resist to use (abrasion) and maintenance (washing, ironing, brushing).

FRP yarns are served to customers with a large variety meeting the demands of home and contract sectors. Raw materials are kept in stocks which enable fast deliveries as short as one week.



FRP - features at a glance



- Wide range of products, many applications: curtains, drapes, furniture fabrics, bed textiles, roller blinds, vertical blinds, awnings, wall coverings
- High color fastness
- FRP yarns are certified with Oeko-Tex Standard 100 (product class 1, highest rating suitable for baby wear too)
- Compatible with the skin
- FRP textiles are environmentally friendly.
- No need for dyeing, thanks to dope dyed yarn spinning.
- Permanent flame retardancy sealed into the polymer chain which not be lost due to wear, washing or age.
- FRP textiles offer life time fire safety.

Fields of Application

Home Textiles

Upholstery, curtains and drapery, mattresses, carpets.

Hotels

Hotel, lobby, bar, restaurant, resort, spa.

Public Venues

Schools, cinemas, theaters, conference halls, concert hall, museum, stadium, public buildings.

Health Care

Hospitals and clinics.

Transport

Upholstery for ships, trains, airplanes and buses.

YARN TYPE	YARN NAME	COLOR	DENIER	DELIVERY TIME	MOQ COLOR/TOTAL	PACKAGE OPTIONS
FDY	FDY SD 75/36 & 150/72	RW+DD+CAT	75-150	Stock	20 kgs	C4 - B4;B5
	FDY SD Other Counts/Color	RW+DD+CAT	75-600	2-3 weeks	1-2 tons	C4 - B4;B5
	FDY BR All Counts/Color	RW+DD+CAT	75-600	2-3 weeks	1-2 tons	C4 - B4;B5
AIR TEXTURED	Taslan SD - BR	RW+CAT	600-2700	1-2 weeks	160 kgs	C1 - B1;B3
	Taslan SD - BR	RW+CAT	150-450	1-2 weeks	480 kgs	C1 - B1;B3
	WoolNAT 200-3000	RW+CAT	200-3000	2-3 weeks	480 kgs	C1 - B1;B3
	MSD Series	RW+DD+CAT	150-900	1-2 weeks	60 kgs	C1 - B1;B3
	SETA/SP1 Series	RW+DD+CAT	150-480	1-2 weeks	40 kgs/480 kgs	C1 - B1;B3
	NAT 150	DD	170	1-2 weeks	40 kgs/480 kgs	C1 - B1;B3
	NAT 225	DD	230	1-2 weeks	40 kgs/480 kgs	C1 - B1;B3
	NAT 320	DD	325	1-2 weeks	40 kgs/480 kgs	C1 - B1;B3
	NAT 450	DD	485	1-2 weeks	40 kgs/480 kgs	C1 - B1;B3
	NAT 600	DD	640	1-2 weeks	60 kgs	C1 - B1;B3
	NAT 1000	DD	990	1-2 weeks	60 kgs	C1 - B1;B3
	NAT 1200	DD	1320	1-2 weeks	80 kgs	C1 - B1;B3
	NAT 2000	DD	1960	1-2 weeks	80 kgs	C1 - B1;B3
	NAT 2700	DD	2565	1-2 weeks	80 kgs	C1 - B1;B3
WoolNAT	WoolNAT 200	DD	200	2 weeks	40 kgs/480 kgs	C2;C3 - B1;B2;B3
	WoolNAT 270	DD	272	2 weeks	40 kgs/480 kgs	C2;C3 - B1;B2;B3
	WoolNAT 390	DD	375	2 weeks	40 kgs/480 kgs	C2;C3 - B1;B2;B3
	WoolNAT 450	DD	480	2 weeks	40 kgs/480 kgs	C2;C3 - B1;B2;B3
	WoolNAT 540	DD	545	2 weeks	40 kgs/480 kgs	C2;C3 - B1;B2;B3
	WoolNAT 760	DD	785	2 weeks	60 kgs/240 kgs	C2;C3 - B1;B2;B3
	WoolNAT 1150	DD	1085	2 weeks	60 kgs/240 kgs	C2;C3 - B1;B2;B3
	WoolNAT 1600	DD	1540	2 weeks	60 kgs/240 kgs	C2;C3 - B1;B2;B3
TEXTURED	DTY SD	RW	75-150-300	Stock	1 box	C1 - B1;B3
	DTY BR	RW	75-1200	2-3 weeks	2 tons	C1 - B1;B3
	FDTY SD	DD	75-600	2-3 weeks	40/480 kgs	C1 - B1;B3
	DTC	RW+CAT	150-300	Stock	1 box / 1 pallet	C1 - B1;B3
	DTC	RW+CAT	450-1200	2-3 weeks	2 tons	C1 - B1;B3
	T&T	RW	90-180	Stock	1 box / 1 pallet	C1 - B1;B7
	T&T	RW+CAT+DD	90-180	2-3 weeks	2 tons	C1 - B1;B3
FLD-COMO	FLD 200	RW+CAT+DD	210	2-3 weeks	40 kgs/480 kgs	C1 - B1;B3
	FLD 305	RW+CAT+DD	325	2-3 weeks	40 kgs/480 kgs	C1 - B1;B3
	FLD 540	RW+CAT+DD	550	2-3 weeks	40 kgs/480 kgs	C1 - B1;B3
	COMO 400	RW+CAT+DD	470	2-3 weeks	40 kgs/480 kgs	C1 - B1;B3
	COMO 770	RW+CAT+DD	705	2-3 weeks	40 kgs/480 kgs	C1 - B1;B3
	COMO 1100	RW+CAT+DD	1140	2-3 weeks	40 kgs/480 kgs	C1 - B1;B3
FANCY	LINO	RW+CAT+DD	300-1000	2-3 weeks	40 kgs/480 kgs	C2;C3 - B1;B2;B3
	HIGN SHRINKAGE TASLAN	RW+CAT	150-1200	2-3 weeks	160 kgs	C1 - B1;B3
	SABLE	RW+DD	150-300	2-3 weeks	1200 kgs	C1 - B1;B3
	NAT CHENILLE	RW+CAT+DD	NM6-NM3	2-3 weeks	60/600 kgs	C1 - B1;B3
	NAT FNC BOUCLET / FLAMME	RW+CAT+DD	1100-6000	2-3 weeks	40 kgs/240 kgs	C2;C3 - B1;B2;B3
APPLICATIONS	Home Textiles, Hotels, Public Venues, Health Care, Transport					
DENIER	Adjusted on demond.					
CAT	Cationic or cationic blend					

PACKAGE OPTIONS

CONES (WxL - kg)			BOXES (WxLxH)		
	TEXTURED	C1-› 26x29 cm - 4,0 kg		TEXTURED	B1-› 500x600x300 mm
	TWISTED/FANCY-A	C2-› 18x29 cm - 2,5 kg		TWISTED/FANCY	B2-› 500x600x230 mm
	TWISTED/FANCY-B	C3-› 14x23 cm - 2,2 kg		JUMBO	B3-› 1000x1200x900 mm
	FDY	C4-› 36x15 cm - 10 kg		FDY BOX	B4-› 300x500x300 mm
Package options are showing the max kg available, cone and box kg may vary depending on the yarn process.				FDY PALLET	B5-› 1150x1150x1400 mm

Following cross sections and fibers are available:
- BR TRL cross section
- SD RD cross section / BR RD cross section
- Super BR Rectangular cross section
- Full Dull Octolobal cross section

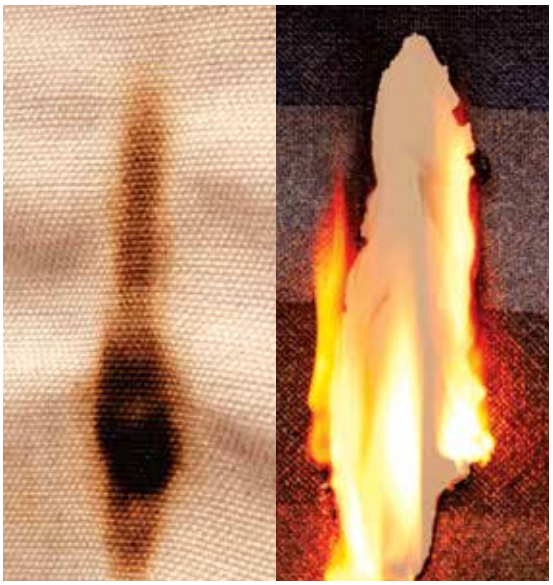
By using these fibers many different types DTY and ATY yarns are produced in various counts.

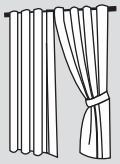
Stock or quick service:
- SD and BR-all the product range - can be produced as FDY/DTY/ATY.
- SD over 60 colors feed yarn and FDY/DTY/ATY product groups which are produced by these yarns.
- SD Cationic FDY, DTY and ATY products.

Even if it is not stock service, the supply for the other products are also remarkably fast, which are;

- Other fiber cross sections and the products that are not mentioned here can be produced by the project requests.

FRP products have been tested by different laboratories and they meet the most important international standards on fire safety.



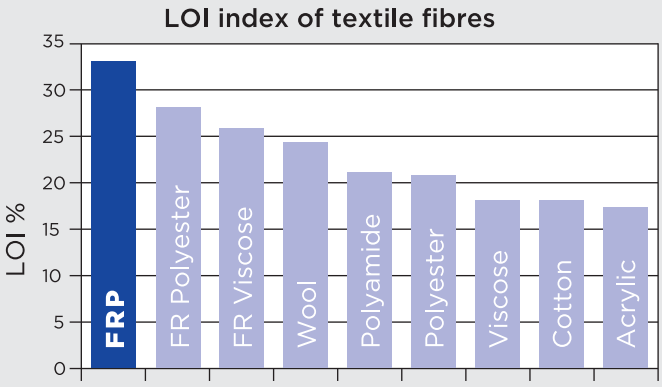
	Test Standard	Classification	Country
Curtainsi Drapery, Decorative Fabrics 	DIN 4102	B1	Germany
	NF P92-503	M1	France
	92-504, 92-505	M1	Great Britain
	BS 5867,5438	Part 2, Type C	International
	IMO FTPC	Part 5-7-8-9	USA
	NFPA 701	Passed	Germany
Upholstery Fabric, Seat Covers	DIN 4102	B1	Europe
	EN 1021	Part 1 & Part 2	International
	IMO FTPC	Part 5-7-8-9	France
	NF P92-503	M1	France
	92-504, 92-505	M1	Great Britain
	BS 5852 (clib 5,7)	Passed	USA
	Califomia TB 116, 117, 133	Passed	USA

Comparative burn test NF P92-503. This test shows how flame retardant FRP textiles (left) melt away once the ignition source has been extinguished, while flames completely go up on the conventional fabrics.

Fire Safety (LOI)

Flammability of a material is measured by the Limit Oxygen Index (LOI), that is the lowest concentration of oxygen that can sustain flame on the material.

The concentration of oxygen in the atmosphere is about 21%. Fibres with LOI values exceeding 21% (Critical Oxygen Index or COI) will have less tendency to burn in the atmosphere.



Fibres with a LOI value higher than 25% are considered flame retardant.

The higher the LOI value, the higher the non-flammability

FRP polyester yarns are among the fibres with the highest LOI, and are suitable for all applications that require flame retardant properties.

FRP CHARACTERISTICS		
Density	(g cm^{-3})	1.38
Melting Point	(°C)	> 220
Moisture regain	(20°C - 65% U.R.) (%)	0.4
Thermal conductivity	Cal. cm^{-1} Sec $^{-1}$ °C $^{-1}$	2.10 - 4
Specific heat	Cal. g^{-1} °C $^{-1}$	0.32
Phosporus content	> 6500 ppm	
LOI	> 30	
Tenacity	> 3g/den (except WoolNat and FLD series)	
Color Fastness	6, 6+ ISO EN 105 B02	

The flame retardant properties are firmly anchored in the molecular chain of the fibre and cannot be affected by external influences.

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TEKSTİL

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