



DIMENSIONALLY STABLE POLYESTER DSP® DIPPED TIRE CORD FABRICS



TCF

POLYESTER DSP® DIPPED TIRE CORD FABRICS

Product	Linear Density		Breaking Strength		Breaking Elongation	Ply Twist	Cable Twist	DPU	H-Adhesion*	EAS1@44.1N	EAS1@58N	EAS1@66.6N	EAS1@88.2N	EAS1@132N	Thermal Shrinkage @177°C, 2min, 0.05g/D	Main Application
	Denier	N	KG	%	TPM	TPM	%	N/cm	%	%	%	%	%	%		
1X50	1000D/2	≥140	≥14.3	≥12	465±15	450±15	3.0±1.0	≥125	4.5±1	-	-	-	-	-	≤2.0	PCLT Tires Carcass
	1300D/2	≥180	≥18.4	≥12	395±15	380±15	3.0±1.0	≥130	-	4.5±1	-	-	-	-	≤2.0	
	1500D/2	≥205	≥20.9	≥12	385±15	370±15	3.0±1.0	≥140	-	-	4.5±1	-	-	-	≤2.0	
	2000D/2	≥260	≥26.5	≥12	345±15	330±15	2.5±1.0	≥160	-	-	-	4.5±1	-	-	≤2.5	
	3000D/2	≥390	≥39.8	≥12	285±15	270±15	2.5±1.5	≥200	-	-	-	-	5.5±1.0	-	≤2.5	
1H75	1000D/2	≥145	≥14.8	≥12	465±15	450±15	3.0±1.0	≥125	4.5±1	-	-	-	-	-	≤2.0	
	1300D/2	≥185	≥18.9	≥12	395±15	380±15	3.0±1.0	≥130	-	4.5±1	-	-	-	-	≤2.0	
	1500D/2	≥216	≥22.0	≥12	385±15	370±15	3.0±1.0	≥140	-	-	4.5±1	-	-	-	≤2.5	
	2000D/2	≥287	≥29.3	≥12	345±15	330±15	2.5±1.0	≥160	-	-	-	4.5±1	-	-	≤2.5	

Test Method: ASTM-D885, *H-Adhesion: ASTM-D4776



ARAMID & HYBRID DIPPED TIRE CORD FABRICS



TCF

Aramid & Hybrid Dipped Tire Cord Fabrics

Aramid		PA 6.6		Breaking Strength	Breaking Elongation	Hot Shrinkage	Ply twist		Cable twist	Main Applications
Denier	dtex	Denier	dtex				Aramid	Nylon66		
				N	%	%	TPM	TPM	TPM	
750D/1	830dtex/1	630D/1	700dtex/1	≥165	8.5+/-1.5	≤2.50	500+/-20	300+/-20	500+/-20	Cap-ply and Carcass of UHP & Specialty Tires
750D/4	830dtex/4	1890D/1	2100dtex/1	≥550	10.0+/-1.5	≤2.50	280+/-20	180+/-20	280+/-20	
1000D/1	1100dtex/1	840D/1	930dtex/1	≥220	8.5+/-1.5	≤4.50	450+/-20	290+/-20	420+/-20	
1500D/1	1670dtex/1	1260D/1	1400dtex/1	≥290	7.5+/-2.0	≤2.50	290+/-20	180+/-20	280+/-20	
1500D/2	1670dtex/2	1260D/1	1400dtex/1	≥420	10.0+/-2.0	≤2.50	370+/-20	220+/-20	370+/-20	
1500D/2	1670dtex/2	-	-	≥420	6.0+/-1.5	≤0.50	420+/-20	-	385+/-20	

Test method: ASTM-D885, Hot Shrinkage: ASTM-D4974



Enka® Nylon

POLYAMIDE PA 6.6 Enka® Nylon DIPPED TIRE CORD FABRICS



TCF

Polyamide PA 6.6 Enka® Nylon Dipped Tire Cord Fabrics

Product	Linear Density	Breaking Strength		Breaking Elongation	Twist	EASI@44N	Cord Gauge	Shrinkage Max.	Main Application
		N	KG						
TCF	dtex	N	KG	%	TPM	%	mm	%	
140HRT (Medium Shrinkage)	940/2	145	14.8	22	330/330	8.5	0.53	3.5	PCLT Tires Cap Ply
	940/2	134	13.7	22	470/470	9.5	0.55	5.0	
	1400/2	210	21.4	23	385/385	7.0	0.65	7.0	
	1880/2	275	28.1	22	335/335	6.0	0.77	6.0	
	2100/2	300	30.6	22	320/320	5.5	0.80	6.0	
	2100/3	510	52.0	22	230/230	4.5	1.00	4.0	
	2800/2	450	45.9	22	215/210	2.5	0.90	5.5	

Test method: ASTM-D885



Viscord

RAYON Viscord® DIPPED TIRE CORD FABRICS



TCF

Rayon Viscord® Dipped Tire Cord Fabrics

Product	Linear Density	Breaking Strength (Oven Dry)		DPU	Cable Twist	EASI@45N	Cord Gauge	Main Application
		N	KG					
TCF	Denier	N	KG	%	TPM	TPM	mm	
Rayon CS3HM	1840dtex/2	≥150	≥15.3	4.0±1.2	460±25	1.8±0.4	0.72±0.04	UHP & RFT Carcass
	1840dtex/3	≥230	≥23.5	4.5±1.5	365±25	1.4±0.4	0.87±0.04	
Rayon CS3	1220dtex/2	≥99	≥10.1	4.0±0.5	535±27	2.7±0.4	0.54±0.05	
	1840dtex/2	≥145	≥14.8	4.0±0.5	460±23	2.0±0.3	0.69±0.05	
	1840dtex/3	≥220	≥22.4	5.0±1.0	360±20	1.4±0.3	0.80±0.04	
	2440dtex/2	≥218	≥22.2	5.0±1.0	260±20	1.0±0.3	0.75±0.05	



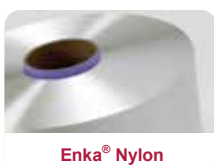
DIMENSIONALLY STABLE POLYESTER DSP® YARN



Polyester DSP® Yarn

Product	Linear Density	Filament	Breaking Strength		Tenacity		Breaking Elongation	EASL @ 44.5N	EASL @ 66.7N/70N*	Thermal Shrinkage @ 177°C, 2min, 0.05g/D	Main Applications
			N	KG	g/D	cN/dtex					
DSP® Yarn	Denier	Count	N	KG	g/D	cN/dtex	%	%	%	%	
1X50	1000	320	80.9	8.3	8.2	7.2	11.0	4.9	-	3.7	Tire Cord Fabrics
	1300	320	104.4	10.7	8.2	7.2	11.5	4	-	3.6	
	1500	480	120.8	12.3	8.2	7.2	11.0	-	5.3	3.5	
	2000	782	152.3	15.5	7.7	6.8	10.5	-	4.5	4	
	3000	1092	227.0	23.2	7.7	6.8	10.5	-	3.0	3.5	
1X53	1000	300	76.8	7.8	7.8	6.9	-	5.2	-	3.0	
	1300	391	98.1	10.0	7.7	6.8	-	4.2	-	2.8	
	1500	446	118.1	12.1	7.9	7.0	-	3.9	-	3.0	
	2000	600	156.1	15.9	7.8	6.9	-	2.8	4.7*	2.8	
	3000	892	228.4	23.3	7.7	6.8	-	1.8	3.3*	3.0	
1H75	1000	320	86.5	8.8	8.8	7.7	10.0	4.8	-	4.2	
	1300	360	111.7	11.4	8.8	7.7	10.0	4.2	-	3.7	
	1500	480	130.0	13.3	8.8	7.7	10.5	-	5.2	3.5	
	2000	600	173.7	17.7	8.8	7.7	10.5	-	4	4.5	
A360 / K360	1000	1128	66.0	6.7	6.7	5.8	10.5	4.7	-	3	
	1670	1860	102.3	10.4	6.2	5.5	13.5	-	6.1	2.2	
	2200	2465	145.4	14.8	6.7	5.9	10.5	-	4	3.5	

Test method: ASTM-D885



Polyamide PA 6.6 Enka® Nylon PA 4.6 Stanylenka® Yarn



Polyamide PA 6.6 Enka® Nylon & PA 4.6 Stanylenka® Yarn

Product	Linear Density		Filament	Breaking Strength		Tenacity		Breaking Elongation	EASF (xN)	HAS@ 180° C, 2min	Main Applications	
	Titer	Actual dtex		Count	N	KG	g/D					mN/tex
Enka® Nylon	Polyamide 6.6 yarn types											
140HRT medium shrinkage	700	716	108	61.5	6.3	9.7	859.0	21	9.8(34N)	5.5	Tire Cord Fabrics	
	940	942	140	80.3	8.2	9.7	852.0	18.4	9.7(45N)	5.1		
	1400	1405	210	119.2	12.2	9.6	848.0	19.1	10.2(68N)	5.1		
	1880	1895	280	160.2	16.3	9.6	845.0	20.0	10.4(90N)	5.1		
	2100	2105	280	175.3	17.9	9.4	833.0	20.0	10.5(100.8N)	5.2		
142HRT medium shrinkage	940	942	140	86.7	8.8	10.4	920.0	18.0	9.7(45N)	5.8		
	1400	1408	210	129.6	13.2	10.4	920.0	19.3	10.2(68N)	5.9		
433HRST	470	474	72	38.8	4.0	9.3	818.0	20.7	7.2(11.3N)	4.8		
444HRST low shrinkage	470	476	72	34	3.5	8.1	714.0	25.5	8.2(11.3N)	3.7		
Stanylenka®	Polyamide 4.6 yarn types											
460HRST* low shrinkage	940	955	144	70.2	7.2	8.3	735.0	19.3	9.0(45N)	4.4		Tire Cord Fabrics
	1400	1430	216	102.0	10.4	8.1	713.0	19.3	9.3(68N)	4.5		
Enka® Plast	Polyamide 6.6/Cotton											
Enka® Plast 225	220	225	-	2.3	0.3	1.2	109.0	275	-	-	High elongation weft yarn	

Test method : BISFA, *PA 4.6, others are PA 6.6



Rayon Viscord® Yarn



Viscord



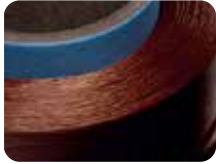
Yarn

Rayon Viscord® Yarn Nylon

Product	Linear Density		Breaking Force (cond.)	EASL @ 45N (Cond.)	Breaking Force (Oven-dry)	EASL @ 45N (Oven-dry)	Wet shrinkage	Main Application
	dtex	Denier						
1220 CS3	1240	1120	55	9.4	64	5.1	8.5	Tire Cord Fabric
1840 CS3	1870	1680	85	6.0	100.0	2.3	6.0	
1840 CS3HM	2020	1820	93	5.0	110.0	1.9	8.0	
1840 CS4*	1870	1680	82	7.5	98	2.5	8.0	
2440 CS3	2440	2200	115	3.3	135	1.5	6.0	

*Fatigue values are about 20% higher than on standard 1840 CS3 / Textile test conditions in line with ASTM dtex acc. BISFA

Single End Cord



SEC

Single End Cord

Product	Linear Density		Breaking Strength		Breaking Elongation	EASL (XN)	LASE (X%)	Main Applications
	dtex	Denier	N	KG				
Aramid	1670/2	1500/2	500	51.0	4.3	0.7(44.1N)	-	Belt, Cap Ply of Specialty Tires
Aramid	1670/3	1500/3	760	77.6	-	-	328(3%)	
PA 6.6 Enka® Nylon	1400/1	1260/1	100	10.2	15.0	8.2(45N)	-	

Test method: ASTM-D885

Production site

■ Kordarna Plus
 ■ Glanzstoff
 ■ PF
 ■ PHP Fibers
 ● 1840dtex/2 & /3 only
 ● 1840dtex & 2440dtex /2 & /3

Material	Product	Denier/dtex	Americas				Europe						Asia			
			Queretaro Mexico		Winnsboro US	Pizzighettone Italy		Steinfurt Luxembourg	Loyosice Czech Rep.	Longjumeau France	Senica Slovakia	Velká nad Veličkou Czech Rep.	Obernburg Germany	Kaiping China	Gingdao China	
			TCF	Yarn	SEC	TCF	TCF	SEC	TCF	Yarn	Yarn	Yarn	TCF	Yarn	TCF	Yarn
HMLS PET	DSP® 1X50	1000D/2-2000D/2	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	High Strength DSP® 1H75	1000D/2-2000D/2	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	DSP® 1X53	1000D/2-2000D/2	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	A360 / K360	1000D/2 1680D/2 2000D/2							●				●	●	●	●
PA 6.6	Enka® Nylon 140HRT	700dtex-2100dtex	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PA 6.6	Enka® Nylon 140HRT	1260D/1				●	●	●	●	●	●	●	●	●	●	●
PA 4.6	Stanylenka® 460HRST	940dtex & 1400dtex										●				
Rayon	Viscord® CS3 & CS4	1220dtex/2 & /3 to 3680dtex/2 & /3				●	●	●	●	●	●	●	●	●	●	●
	Viscord® CS3HM	1220dtex/2 & /3 to 3680dtex/2 & /3				●	●	●	●	●	●	●	●	●	●	●
Aramid	Pure Aramid	1500D/2 & 1500D/3			●	●	●	●	●	●	●	●	●	●	●	●
	Aramid Hybrid	A1000D/1+N840D/1 & A1500D/1+N1260D/1			●	●	●	●	●	●	●	●	●	●	●	●

Specific product data may vary slightly from site to site.