INDUSTRIAL YARNS

PRODUCT INFORMATION

nexis fibers

OEKO-TEX®
CONFIDENCE IN TEXTILES
STANDARD 100
VUTCH 37 VUTCH
Tested for harmful substances
www.oeko-tex.com/standard100

bluesign®
SYSTEM PARTNER

... Swiss-engineered products

... Manufactured in Europe

... ISO 9001 certifications

... ISO 14001 certifications

... ISO IATF 16949 certification

... awarded Corporate Social Responsibility

... bluesign® approved Nylon 6 products

... OEKO-TEX® approved Nylon 6 products

Shaping the Future

Nexis Fibers is the leading European manufacturer of industrial multifilament polyamide yarns, polymers, twisted and air-jet textured yarns.

Our mission is to help make our stakeholders (owners, employees, customers and local communities) successful, with our Swiss-engineered products, with our 100+ years of knowledge, and with our commitment to sustainable development.

Our plants are located in the European Union, and are held to the highest environmental, social, and ethical standards, being proved by our partnership with bluesign® & Oeko-tex® and confirmation of our performance in the field of Corporate Social Responsibility by Ecovadis®.

Our products are used in demanding applications, wherever high quality, consistent properties, and reliable service are required.

Your Partner for Success

Nexis Fibers is committed to supporting our customers with fast, innovative and customized solutions through strong, long-term partnerships. Our best-in-class European production facilities can offer you tailor-made product ranges that fit your needs and are shaped for future opportunities.

Typical Applications - Yarns

Tyres and Mechanical Rubber Goods
Airbag Fabrics
Other Woven Fabrics
Technical Textiles
Sewing Threads
Specialty Ropes (Mountaineering, Marine, Industrial ropes, Lariats)
Nets (Raschel and Knotted)

Typical Applications – Polymers

Monofilaments
Bristles, Brushes
Compounding
Engineering Plastics
Paper Machine Clothing
Abrasive Goods

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2022

Locations of Nexis Fibers:

Slovakia	: Humenné, Production & Headquarters
Latvia	: Daugavpils, Production
USA	: Atlanta, GA, Sales office

Website: www.nexisfibers.com

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Safety Data Sheets:
http://www.nexisfibers.com/safety-data-sheets

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Technical information :

nexis fibers

2022

Physical characteristics of man-made and natural fibres

Type of fibre	Code	Densitiy	Moisture adsorption 65% R.H. 20°C	Melting temperature	Glass transition temperature (dry)	Chemical resistance + = resistant o = relatively resistant - = unresistant			
		[g/cm3}	[%]	[°C]	[°C]	Acids	Alkalis	Organic solvents	Hydro lysis
Cotton	CO	1.50 - 1.54	7 - 11	decomp. (400)	-	-	o	+	+
Wool	WO	1.32	15 - 17	decomp.	-	o	-	+	+
Glass fibre	GF	2.4 - 2.6	0	-	850 - 950	o	o	+	+
Carbon	CF	1.9 - 2.18	0	decomp. (2 500)	-	+	+	+	+
Viscose	CV	1.52	11 - 14	decomp. (175 - 205)	-	-	o	+	+
Polyamide 4.6	PA 4.6	1.18	4.5 - 5.0	290	80	o	o	o	o
Polyamide 6	PA 6	1.14	3.5 - 4.5	215 - 220	80	-	+	o	o
Polyamide 6.6	PA 6.6	1.14	3.5 - 4.5	255 - 260	90	-	+	o	o
Polyamide 6.10	PA 6.10	1.07	2	216	50	o	o	+	o
Polyetheylene	PE	0.95	0	125 - 135	-3.5	+	+	o	+
Polypropylene	PP	0.92	0	160 - 175	-10	+	+	o	+
Polyphenylene-sulfid	PPS	1.38	0.2	295	90	+	+	+	+
Polyether-ether-keton	PEEK	1.3	0.15	335	143	+	+	+	+
Aramide	AR	1.38 - 1.44	3 - 7	decomp. (370 - 550)	280 - 300	o	o	+	o
Polyester	PET	1.38	0.2 - 0.5	250 - 260	90	+	-	o	-
Polyetylene-naphthalate	PEN	1.36	0.2	268	123	+	o	+	o
Polybutylene-terephthalate	PBT	1.30 - 1.34	0.4	221 - 225	30	o	-	o	-
Polyvinyl-alcohol	PVAL	1.25 - 1.30	3.5 - 5.0	decomp. (240 - 250)	75 - 130	+	+	o	-

Yarn description :

Nexis uses International System Units to characterize its products :

Yarn count - Tex :

Basic Unit - Tex	:	Mass in grams of 1'000 meters yarn length
Decimal fraction - dtex	:	Mass in grams of 10'000 meters yarn length

Other common units :

Denier – den	:	Mass in grams of 9'000 meters yarn length
Numerometric – Nm	:	Length in meters of 1 gram of yarn

Twist conventions :

Twist : The twist has two key elements :

a) the twist direction
b) the number of turns per meter

Twist direction :

Held vertically, the individual filaments of a Z-twisted yarn are twisted from right to left and appear as the diagonal of the letter "Z". The same applies in case of a multiple ply Z-twisted yarn;

Held vertically, the individual filaments of a S-twisted yarn are twisted from left to right and appear as the diagonal of the letter "S". The same applies in case of a multiple ply S-twisted yarn;

Number of turns : Expressed in turns per meter (T.P.M or T/m)

Coefficient of twist - : Expresses the level of twist on a yarn.
It is defined by the multiplication of the number of turns by the square root of the count (direct system); or by the division of the number of turns by the square root of the count (indirect system) :

α (dtex) = n/100 x $\sqrt{\text{dtex}}$ n = T / m

Doubling or assembling or plying : Operation consisting into twisting two or more yarns together. The single ends twist and the resulting doubling twist are quoted.

Winding direction : : The winding direction of a yarn on a bobbin are noted by the letters p and q. The direction in which a yarn is wound up influences the unwinding in function of the direction of its twist.

p-winding

: Facing the front end of a bobbin, the end of the yarn falls on the left side :
p-winding on an S-twisted yarn tends to open the yarn;
p-winding on a Z-twisted yarn tends to close the yarn.

q-winding

: Facing the front end of a bobbin, the end of the yarn falls on the right side :
q-winding on an S-twisted yarn tends to close the yarn;
q-winding on a Z-twisted yarn tends to open the yarn.

Conversion factors for SI, metric, English and American units :

Breaking Force :

Lbs – N	Pounds-force (lbs) x 4.4480 = Newtons (N)
N – Lbs	Newtons (N) x 0.2248 = Pounds-Force (lbs)

Yarn count :

Den – dtex	Denier (den) x 1.111 = Decitex (dtex)
Dtex – den	Decitex (dtex) x 0.900 = Denier (den)

Tenacity :

g/d – cN/Tex	Grams-Force / denier (g/d) x 8.830 = Centinewtons / Tex (cN/Tex)
cN/Tex	Centinewtons / Tex (cN/Tex) x 0.1132 = Grams-Force / denier (g/d)

Temperatures :

°F - °C	(Fahrenheit – 32) x 0.555 = Centigrade (°C)
	(1.8 x Centigrade) + 32 = Fahrenheit (°F)

Mass

Kg – lbs	Kilogram (kg) x 2.2046 = Pounds (lbs)
Lbs – kg	Pounds (lbs) x 0.4536 = Kilogram (kg)

Test methods for industrial multifilament yarns :

1. Test room conditions

The standard conditions according to BISFA are :

- temperature : 20 ± 2°C
- relative humidity : 65 ±2%

All tests must be carried out in conditioned state (10hours min.).
All mentioned weights are defined according to BISFA rules.

2. Linear density (count or titer)

The linear density in decitex corresponds to the weight in grams of 10'000m of yarn.
A sample of 25 or 100 meters is wound up on a standard reel under a pretension of 0.5cN/Tex and weighed on an analytical scale. The grams per 10'000m yarn length are then calculated.

3. Breaking force and elongation at break

The breaking force is the force needed to be applied on a yarn to make it break. It is expressed in Newton (N).
The elongation at break is the increase of the length produced by stretching a yarn to its breaking point. It is expressed as a percentage of its initial length.
The test is carried out on a dynamometer with a constant stretching speed, under the following conditions :

- length of yarn between clamps : 500mm (or 250mm);
- pretension of yarn between clamps : 0.5cN/Tex
- test speed :
  - 50mm/min (25mm/min) if elongation at break ≤ 8%
  - 500mm/min (250mm/min) if elongation at break is between 8 and 50%
  - 1000mm/min (500mm/min) if elongation at break ≥ 50%

Yarn with 0-twist are measured with Z60 for technic al reasons.

4. Tenacity

Calculated from the breaking force and the linear density, and expressed in centinewton per tex (cN/Tex) :

Tenacity (cN/Tex) = 1000 x Breaking force (N) / linear density (dtex)

5. Force at specified elongation (FASE)

This is the force necessary to stretch the yarn to a define extension (usually 2% and 5%).

6. Hot air shrinkage

This is the yarn length reduction caused by hot air treatment, expressed as a percentage of the initial yarn length. We distinguish between free shrinkage and shrinkage under pretension.:

a) Free shrinkage :

After the measurement of the yarn length (L1) under 1cN/Tex pretension, the sample is submitted free of tension to a defined temperature (usually between 100°C and 200°C; for Nexis Fibers : 180°C) for 15 minutes.
After a cooling time of 1 hour under standard atmospheric conditions, the shrunk yarn is measured again under 1cN/Tex pretension to define its shrunk length (L2).
The residual shrinkage is defined as (L1-L2) x 100 / L1

b) Shrinkage under pretension : Nexis internal norm LP-3872-08

The yarn sample is introduced under a pretension of 0.1cN/Tex into a heated channel. The induced yarn shrinkage, in percentage of the initially introduced yarn length, is read directly from a scale. The test conditions are :

- 15minutes at 180°C for Polyamide 6 yarns;
- 10minutes at 180°C for Polyamide 6.6 yarns < 940dtex;
- 15minutes at 180°C for Polyamide 6.6 yarns ≥ 940dtex.

c) Shrinkage under pretension : BISFA norm

The yarn sample is introduced under a pretension of 0.5 cN/Tex into a heated channel. The induced yarn shrinkage, in percentage of the initially introduced yarn length, is read directly from a scale. The test conditions are :
180°C; 2 minutes; pretension 0,5cN/tex

7. Hot air shrinkage force

This is the shrinkage force in cN resulting from the hot air treatment at 180℃, under a pretension of 0.1cN/Tex.

8. Hot water shrinkage (95℃)

This is the yarn length reduction caused by hot water treatment, expressed as a percentage of the initial yarn length, defined according to the following method :

- On a standard reel of 1m circumference,skeins are prepared for a 5'000dtex equivalent. The length of the skeins are measured under 1cN/Tex pretention in order to define L1;
- The skeins are then boiled free of tension during 30 minutes in hot water (95℃), then dried and conditioned at standard conditions;
- The shrunk skeins are measured again under 1cN/Tex pretension in order to define L2;

The hot water shrinkage is expressed in percent as (L1-L2) x100 / L1

9. Intermingling

This is the number of points per meter of yarn, where filaments are interlaced. These filament entanglement points along the yarn are necessary to insure a good unwinding and processability of a non-twisted yarn during any transformation process.

Product Information

Main end-use areas

Industrial Yarns	Tyre reinforcement	Mechanical rubber goods	Airbag fabrics	Weaving	Curing tapes	Ropes	Nets	Sewing threads
Polyamide 66								
Type								
632				X				X
633				X				
634				X				
640		X			X			
641		X		X	X			
642		X		X	X			
644		X	X	X	X			
650	X	X		X				
653		X						
654	X	X		X				
656		X						
682		X	X					
Under Development								
532				X				X
681		X		X	X			X
684		X		X	X			X
683		X		X	X			X

Type	Polyamide 6 (OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 VUTCH 37 VUTCH Tested for harmful substances www.oeko-tex.com/standard100; bluesign®; SYSTEM PARTNER)							
051				X		X	X	
052				X		X		
321						X		
370				X		X	X	
371				X		X	X	
372						X		
373						X		
851	X	X				X		
372H				X		X	X	
051H				X		X		
052H				X		X		
Under Development								
323						X		
051L				X		X	X	X
551	X	X		X				
853	X	X				X		

Type	Polyamide 6.10							
951	X	X		X		X	X	
923						X		

All yarn products can be twisted or air-jet textured in house

Polymers for Engineering Plastics, Monofilaments

Standard		Under Development	
PA6.10	PA6.12	PA6.10	PA6.12
7005	8030	7033	8005
7011	8040	7037	
7031	8050		
7030	8060		
7035	8070		
7040			
7050			

PA6 Spun dyed for Ropes, Nets & Weaving applications

OEKO-TEX® STANDARD 100 VUTCH 37 VUTCH

bluesign® approved

TYPE	Product	Heat resistant	Light protected	Titer		Breaking Strength°		Tenacity°		Elongation°	H. air sh.°	BWS°	IMG	Oil	Tube	Weight		Diam.
				(dtex)	(Den)	(N)	(lbf)	(cN/Tex)	(gpd)	(%)	BISFA (%)	95°C (%)	(kn./m)	(%)	(mm)	(g)	(lbs)	(mm)
051	940 f 136 - CXXX	-	X	940	846	68,8	15,5	72,5	8,2	22,7	9,5	11,0	21	1,00	Y73/292	9100	20,1	255
051	1160 f 136 - CXXX	-	X	1160	1044	80,0	18,0	69,0	7,8	24,0	9,0	10,5	22	1,00	Y73/292	9100	20,1	255
051	1400 f 204 - CXXX	-	X	1400	1260	101,5	22,8	72,5	8,2	22,5	10,0	11,0	18	1,00	Y73/292	9100	20,1	255
051	1880 f 272 - CXXX	-	X	1880	1692	136,3	30,6	72,5	8,2	22,5	10,0	11,0	18	1,00	Y73/292	9100	20,1	255
051	2100 f 272 - CXXX	-	X	2100	1890	153,3	34,5	72,5	8,2	24,0	9,5	10,0	15	1,00	Y73/292	9100	20,1	255
551	470f70 C907	X	X	475	427,5	37,0	8,3	78,0	8,8	24,0	8,0	9,0	21	1,00	Y75/292	5100	11,2	255
051L	1880 f 280- C907	-	X	1880	1692	135,0	30,4	72,5	8,2	26,0	9,5	10,0	15	1,00	Y75/292	9500	20,9	275

° : The characteristics can vary from 1 color to another

Colour		Rub-Fastness - Crockmeter (1-5 grey scale)		Wet-Fastness (1-5 grey scale - shade fading / Stain on PA* / Stain on WO**)	Light-Fastness (1-8 on blue scale after 300h)
Color codes		STN EN ISO 105-X12		STN 80 0143 eqv. ISO 105-E01	STN EN ISO 105-B02
		Dry	Wet		
C - 123	Yellow	5	4-5	5 / 5 / 4-5	7
C - 125	Lemon Grass	4-5	4-5	5 / 3-4 / 3-4	7
C - 201	Goldenrod	5	5	4-5 / 4-5 / 4-5	6-7
C - 203	Orange	4-5	4-5	5 /3-4 / 3-4	6-7
C - 215	Carrot	5	5	5 / 4-5 / 4-5	7
C - 308°	Desert flower	5	5	5 / 5 / 5	4
C - 320	Raspberry	4-5	4-5	4-5 / 5 / 5	6-7
C - 332	Fire	4-5	4-5	4-5 / 4 / 4	6-7
C - 333	Wine	5	5	4-5 / 5 / 5	6
C - 407°	Pink	5	5	5 / 5 / 5	5
C - 414°	Frozen lavender	5	5	5 / 5 / 4-5	5
C - 432	Violet	5	5	5 / 5 / 5	6-7
C - 516	Skylight	5	5	5 / 5 / 5	8
C - 525	Royal	4-5	5	5 / 5 / 5	7-8
C - 539	Marine	5	4-5	5 / 5 / 5	7
C - 543	Navy blue	5	4-5	4-5 / 5 / 4-5	8
C - 562°	Baby blue	5	5	5 / 5 / 4-5	5
C - 581	Ice mint	4-5	4-5	5 / 5 / 4-5	7
C - 585	Caribbean blue	5	4-5	5 / 4 / 4	7
C - 591°	Turquoise	4-5	4-5	5 / 4-5 / 4-5	5-6
C - 620	Boa	5	5	4-5 / 5 / 5	6-7
C - 623	Golf	4-5	4-5	5 / 4-5 / 4-5	7
C - 640	Mimicry green (IRI)	5	5	5 / 5 / 4-5	7-8
C - 662	Grass	5	5	5 / 5 / 5	7
C - 664	Emerald	5	5	5 / 4-5 / 4-5	6
C - 672	Khaki	5	4-5	5 / 5 / 5	7
C - 675	Lizard green (IRI)	5	5	5 / 4-5 / 5	7-8
C - 678	Moss green (IRI)	5	5	5 / 5 / 5	7
C - 680	Rifle green	5	5	5 / 5 / 5	7-8
C - 686	Olive Dust	5	5	5 / 5 / 5	8
C - 721	Gold	5	5	5 / 5 / 4-5	7
C - 730	Desert	5	5	5 / 5 / 5	6-7
C - 750°	Olive Brown	4-5	4-5	4-5 / 4-5 / 4-5	5-6
C - 780	Chocolate	4-5	5	4-5 / 4-5 / 4-5	7
C - 801	Shark	4-5	5	5 / 5 / 5	7
C - 824	Mirage	5	5	5 / 5 / 5	7-8
C - 833	Steel	4	4	5 / 4-5 / 4-5	7
C - 850	Mouse Grey	4-5	4	4 / 4 / 4-5	8
C - 864	Dark grey	5	5	4-5 / 4 / 4-5	7-8
C - 875	Basalt	5	5	5 / 5 / 4-5	7
C - 905	Black	5	5	5 / 5 / 5	7
C - 907	Black	5	5	5 / 5 / 5	8
C - 981	Black (IRI)	5	5	5 / 5 / 5	7

* PA : polyamide fabric, ** WO : wool fabric, ° Colours with fastness limitations. (IRI) Infrared Invisible Spun Dyed Colours

C-xxx° - It is recommended to check the fastness properties on the final product. For end-uses that are particularly sensitive to wet fastnesses, or with very high light fastness requirements, please consult with Nexis-Fibers' Technical Support Team.

nexis fibers

PA6 Spun dyed Neon Colors for Ropes, Nets & Weaving applications

TYPE	Product	Heat resistant	Light protected	Titer		Breaking Strength		Tenacity		Elongation°	H. air sh.	BWS	IMG	Oil	Tube	Weight		Diam.
				(dtex)	(Den)	(N)	(lbf)	(cN/Tex)	(gpd)	(%)	BISFA (%)	95°C (%)	(kn./m)	(%)	(mm)	(g)	(lbs)	(mm)
052	940 f 136 - NXXX	-	X	940	846	71,4	16,1	76	8,6	22,0	10,0	11,0	20	1,00	Y73/292	9100	20,1	255
052	1400 f 204 - NXXX	-	X	1400	1260	104,3	23,4	74,5	8,4	22,0	10,0	11,0	20	1,00	Y73/292	9100	20,1	255
Under development																		
052	1880 f 272 - NXXX	-	X												Y73/292	9100	20,1	255
052	2100 f 272 - NXXX	-	X												Y73/292	9100	20,1	255

The characteristics can vary from 1 color to another

Colour		Rub-Fastness - Crockmeter (1-5 grey scale)		Wet-Fastness (1-5 grey scale - shade fading / Stain on PA* / Stain on WO**)	Light-Fastness (1-8 on blue scale after 300h)
Color codes		STN EN ISO 105-X12		STN 80 0143 eqv. ISO 105-E01	STN EN ISO 105-B02
		Dry	Wet		
N - 115°	Neon Yellow	4	2-3	4 / 3-4 / 3-4	3
N - 204°	Neon Apricot	5	5	5 / 5 / 5	1
N - 255°	Neon Orange	5	4-5	4-5 / 4 / 4-5	2
N - 325°	Neon Pink	4	4	3-4 / 4 / 4-5	2
N - 366°	Neon Buble gum	5	5	5 / 4 / 4-5	3
N - 635°	Neon Green	4-5	4	4 / 3-4 / 4	2

*- polyamide fabric, **- wool fabric

N-xxx ° - It is recommended to check the fastness properties on the final product.
For end-uses that are particularly sensitive to wet fastnesses, or with very high light fastness requirements, please consult with Nexis-Fibers' Technical Support Team.

Packaging T051/T052			
Packing ID	Pallet		
	LxWxH	No. of cylinders	Gross weight (kg)
P12-07	1100x800x1700	60	600

Note: Non-standard packaging is subject to special agreement.

All colors can be delivered plied and twisted, or Air- jet textured. Please contact the Technical Support for all inquiries.

P12-07

PA66 Spun dyed Colors for Weaving applications

TYPE	Product	Heat resistant	Light protected	Titer		Breaking Strength		Tenacity		Elongation°	FASE 5%	H. air sh.	BWS	IMG	Oil	Tube	Weight		Diam.
				(dtex)	(Den)	(N)	(lbf)	(cN/Tex)	(gpd)	(%)	(N)	BISFA (%)	95°C (%)	(kn./m)	(%)	(mm)	(g)	(lbs)	(mm)
532	**235 f 34 - C905**	**X**	**X**	**233**	**210**	**14,9**	**3,4**	**64**	**7,3**	**24,0**	**2,9**	**4,3**	**3,2**	**27**	**0,70**	**Y94/290**	**4200**	**9,3**	**220**
532	**470 f 68 -C905**	**X**	**X**	**473**	**426**	**30,7**	**6,9**	**65**	**7,4**	**22,0**	**5,2**	**4,3**	**3,2**	**27**	**0,80**	**Y94/290**	**4600**	**10,1**	**230**
Under development																			
532	**235 f 34 C-XXX**	**X**	**X**	**233**	**210**	**14,9**	**3,4**	**64**	**7,3**	**24,0**	**2,9**	**4,3**	**3,2**	**27**	**0,70**	**Y94/290**	**4200**	**9,3**	**220**
532	**470 f 68 C-XXX**	**X**	**X**	**473**	**425**	**30,7**	**6,9**	**65**	**7,0**	**22,0**	**5,2**	**4,3**	**3,2**	**27**	**0,80**	**Y94/290**	**4600**	**10,1**	**230**

The characteristics can vary from 1 color to another

Colour		Rub-Fastness - Crockmeter (1-5 grey scale)		Wet-Fastness (1-5 grey scale - shade fading / Stain on PA* / Stain on WO**)	Light-Fastness (1-8 on blue scale after 300h)
Color codes		STN EN ISO 105-X12		STN 80 0143 eqv. ISO 105-E01	STN EN ISO 105-B02
		Dry	Wet		
C - 123	**Yellow**	5	4-5	5 / 4 / 4-5	7
C - 203	**Orange**	5	4-5	5 / 4-5 / 4-5	6-7
C - 320	**Raspberry**	5	5	5 / 4-5 / 5	7-8
C - 640	**Mimicry Green** (IRI)	5	4-5	4-5 / 4 / 4-5	7-8
C - 662	**Grass**	4-5	4-5	5 / 4-5 / 4-5	7
C - 750	**Olive Brown**	5	4-5	5 / 4 / 4-5	6
C - 850°	**Mouse Grey**	4-5	4-5	4-5 / 4 / 4-5	5
C - 875	**Basalt**	5	4-5	5 / 4-5 / 5	7-8
C - 905	**Black**	5	5	5 / 4-5 / 5	7-8
C - 955	**Black**	5	4-5	5 / 4-5 / 4-5	7-8

* PA : polyamide fabric, ** WO : wool fabric, ° Colours with fastness limitations.

(IRI) Infrared Invisible Spun Dyed Colours

C-xxx° - It is recommended to check the fastness properties on the final product. For end-uses that are particularly sensitive to wet fastnesses, or with very high light fastness requirements, please consult with Nexis-Fibers Technical Support Team.

Packaging			
Packing ID	Pallet		
	LxWxH	No. of cylinders	Gross weight (kg)
PT6-01	1200x800x1050	60	600

PT6-01

All colors can be delivered plied and twisted, or Air- jet textured.
Please contact the Technical Support for all inquiries.

PA6 Hydrophobic yarns

TYPE	Product	Heat resistant	Light protected	Titer		Breaking Strength		Tenacity		Elongation	H. air sh.	BWS	IMG	Oil	Tube	Weight		Diam.
				(dtex)	(Den)	(N)	(lbf)	(cN/Tex)	(gpd)	(%)	BISFA (%)	95°C (%)	(kn./m)	(%)	(mm)	(g)	(lbs)	(mm)
372H	**940 f 136**	**-**	**X**	**940**	**846**	**64**	**14,5**	**68,5**	**7,8**	**21**	**7,7**	**11,5**	**20**	**1**	**Y73/292**	**10200**	**22,5**	**275**
372H	**1400 f 204**	**-**	**X**	**1400**	**1260**	**101**	**22,7**	**72,0**	**8,2**	**21,5**	**9,5**	**10,5**	**20**	**1**	**Y73/292**	**10200**	**22,5**	**275**
051H	**940 f 136 C- XXX**	**-**	**X**	**940**	**846**	**63**	**14,3**	**67,5**	**7,6**	**24,5**	**9,8**	**10,5**	**21**	**1**	**Y73/292**	**9100**	**20,1**	**255**
Under development																		
052H	**940 f 136 C-XXX**	**-**	**X**	**940**	**846**	**64**	**14,4**	**68,0**	**7,7**	**24,5**	**10**	**11**	**21**	**1**	**Y73/292**	**9100**	**20,1**	**255**

C-XXX - colors from our portfolio Force & Elongation can slightly moved from color to color for more information please contact Technical support

P11-04, P12-07

Packing ID	Pallet			Yarn Type
	LxWxH	No. of cylinders	Gross weight (kg)	
P12-07	1100x800x1700	60	600	T051H, T052H
P11-06	1100x800x1050	33	370	T372H
P11-04	1100x800x1700	55	550	T372H

Note: Non-standard packaging is subject to special agreement.

P12-05, 143

All types can be delivered plied and twisted up to 110,000dtex. 940 dtex - 3000 dtex can be delivered Air- jet textured.

Please contact the Technical Support for all inquiries.

PA6 for Ropes, Weaving and Nets applications

TYPE	Product	Heat resistant	Light protected	Titer		Breaking Strength		Tenacity		Elongation	H. air sh.	BWS	IMG	Oil	Tube	Weight		Diam.
				(dtex)	(Den)	(N)	(lbf)	(cN/Tex)	(gpd)	(%)	BISFA (%)	95°C (%)	(kn./m)	(%)	(mm)	(g)	(lbs)	(mm)
371	700 f 140	-	X	702	632	56,0	12,6	80	9,1	22,0	9,6	11,8	20	0,90	73/312	9900	21,8	272
371	940 f 140	-	X	946	851	77,0	17,3	81	9,2	22,5	9,6	11,8	20	0,90	73/312	9900	21,8	272
371	1160 f 140	-	X	1161	1045	92,5	20,8	80	9,1	22,5	9,6	11,8	20	0,90	73/312	9900	21,8	272
371	1400 f 210	-	X	1410	1269	114,0	25,6	81	9,2	22,5	9,6	11,8	20	0,90	73/312	9900	21,8	272
371	1880 f 280	-	X	1905	1715	152,0	34,2	80	9,1	22,5	9,6	11,8	20	0,90	73/312	9900	21,8	272
371	2100 f 280	-	X	2128	1915	168,0	37,8	79	9,0	22,5	9,6	11,8	20	0,90	73/312	9900	21,8	272
371	2800 f 420	-	X	2820	2538	225,6	50,7	80	9,1	22,5	9,6	11,8	15	0,90	73/312	9900	21,8	272
370	940 f 136	-	X	946	851	74,0	16,6	78	8,9	24,0	6,9	7,9	20	1,00	Y73/292	10200	22,5	275
370	1400 f 204	-	X	1405	1265	113,0	25,4	80	9,1	24,5	7,3	7,7	15	0,90	Y73/292	10200	22,5	275
370	1880 f 272	-	X	1905	1715	153,0	34,4	80	9,1	23,5	6,6	7,9	15	0,90	Y73/292	10200	22,5	275
373	2100 f 272	-	X	2130	1917	168,0	37,8	79	8,9	21,0	13,5	15,5	16	1,00	Y73/292	9400	20,7	254
321	1400 f 136	-	X	1400	1260	77,0	17,3	55	6,2	40,0	9,1	13,4	15	0,90	Y73/292	9100	20,1	254
321	1950 f 272	-	X	1950	1755	97,5	21,9	50	5,7	46,0	7,9	12,6	15	0,90	Y73/292	9100	20,1	254
372	940 f 136	-	X	940	846	78,0	17,5	83	9,4	21,5	9,7	12,0	15	1,00	Y73/292	9100	20,1	254
372	1400 f 204	-	X	1400	1260	117,0	26,3	84	9,5	21,5	10,2	12,0	15	1,00	Y73/292	9100	20,1	254
372	1880 f 272	-	X	1880	1692	157,0	35,3	84	9,5	21,5	10,3	12,0	15	1,00	Y73/292	9100	20,1	254
372	2100 f 272	-	X	2130	1917	175,0	39,3	82	9,3	21,0	10,0	12,0	15	1,00	Y73/292	9100	20,1	254
Under development																		
323	1400 f 136	-	X	1400	1260	91,5	20,6	65	7,4	30,5	11,0	14,5	15	1,00	Y73/292	9100	20,1	254
370	2100 f 272	-	X	2128	1915	168,0	37,8	79	8,9	23,0	7,1	7,9	15	1,00	Y73/292	10200	22,5	275
372H	940 f 136	-	X	940	846	64	14,5	68,5	7,8	21	7,7	11	20	1,00	Y73/292	10200	22,4869	275
372H	1400 f 204	-	X	1400	1260	101	22,7	72,0	8,2	21,5	9,5	11	20	1,00	Y73/292	10200	22,4869	275
551	470f70	X	X	470	423	36	8,1	75,0	8,5	26	8	10	22	1,10	Y75/290	5100	11,2435	275
373	1400 f 210	-	X	1400	1260	111,3	25,0	79,5	9,0	21,0	13,5	15,5	20	1,00	Y73/312	9900	21,8	272

PA6 for Industrial Ropes applications

TYPE	Product	Heat resistant	Light protected	Titer		Breaking Strength		Tenacity		Elongation	H. air sh.	BWS	IMG	Oil	Tube	Weight		Diam.
				(dtex)	(Den)	(N)	lbf	(cN/Tex)	(gpd)	(%)	BISFA (%)	95°C (%)	(kn./m)	(%)	(mm)	(g)	(lbs)	(mm)
851	940 f 136	X	-	940	846	80,0	18,0	85	9,6	21,0	9,5	10,8	17	1,00	Y73/292	9100	20,1	254
851	1400 f 204	X	-	1400	1260	118,0	26,5	84	9,6	21,0	9,9	10,8	17	1,00	Y73/292	9100	20,1	254
851	1880 f 272	X	-	1880	1692	159,0	35,7	85	9,6	22,0	9,2	10,8	18	1,00	Y73/292	9100	20,1	254
851	2100 f 272	X	-	2130	1917	177,0	39,8	83	9,4	22,0	9,5	10,8	16	1,00	Y73/292	9100	20,1	254
Under development																		
851P	1400 f 210	X	-	1430	840	120	17,5	84,5	9,6	21,0	10,0	7,0	17	1,00	Y73/292	9100	20,1	255
853	940 f 136	X	-	940	840	77,0	17,5	82	9,3	24,0	6,5	7,0	17	1,00	Y73/292	9100	20,1	254
853	1400 f 204	X	-	1400	1260	118,0	26,5	84	9,6	22,0	6,1	7,0	17	1,00	Y73/292	9100	20,1	254
853	1880 f 272	X	-	1880	1692	156,0	35,1	83	9,4	24,0	6,0	7,0	16	1,00	Y73/292	9100	20,1	254

P11-04, P12-07

Packaging

Packing ID	Pallet			Yarn Type
	LxWxH	No. of cylinders	Gross weight (kg)	
P12-07	1100x800x1700	60	600	T321, T372, T851, T853
P12-05	1100x800x2000	72	720	T321, T372, T851, T853
P11-04	1100x800x1700	55	550	T370, T371, HUM
143	1140x800x2060	66	740	T370, T371,T373 DGS

Note: Non-standard packaging is subject to special agreement.

P12-05, 143

All types can be delivered plied and twisted up to 110,000dtex. 940dtex - 3000dtex can be delivered
Air- jet textured.

Please contact the Technical Support for all inquiries.

PA66 for Tyres and Mechanical Rubber Goods applications

TYPE	Product	Heat resistant	Light protected	Titer		Breaking Strength		Tenacity		Elongation	H. air sh.	BWS	IMG	Oil	Tube	Weight		Diam.
				(dtex)	(Den)	(N)	(lbf)	(cN/Tex)	(gpd)	(%)	BISFA (%)	95°C (%)	(kn./m)	(%)	(mm)	(g)	(lbs)	(mm)
650	940 f 140	X	X	952	857	80,7	18,1	85	9,6	19,5	7,4	8,0	16	1,00	Y73/292	10500	23,1	280
650	940 f 140	X	X	952	857	80,7	18,1	85	9,6	19,5	7,4	8,0	16	1,00	Y94/290	10750	23,7	300
650	1400 f 210	X	X	1415	1274	122,0	27,4	86	9,8	20,5	6,2	7,0	15	1,00	Y73/292	10500	23,1	280
650	1400 f 210	X	X	1415	1274	122,0	27,4	86	9,8	20,5	6,2	7,0	15	1,00	Y94/290	10750	23,7	300
650	1880 f 280	X	X	1900	1710	165,0	37,1	87	9,8	21,0	6,4	7,5	13	1,00	Y94/290	10750	23,7	300
650	2100 f 280	X	X	2115	1904	182,0	40,9	86	9,8	21,0	6,6	7,5	9	1,00	Y94/290	10750	23,7	300
650	2800 f 420	X	X	2850	2565	250,0	56,2	88	9,9	21,0	6,4	7,0	11	1,00	Y94/290	9000	19,8	280
653	940 f 140	X	X	952	857	79,0	17,8	83	9,4	21,0	4,8	4,8	16	1,00	Y94/290	10750	23,7	300
653	1400 f 210	X	X	1400	1260	120,0	27,0	86	9,7	22,0	4,7	4,8	11	1,00	Y94/290	10750	23,7	300
653	1880 f 280	X	X	1900	1710	160,0	36,0	84	9,5	22,5	4,6	4,8	13	1,00	Y94/290	10750	23,7	300
653	2100 f 280	X	X	2115	1904	182,0	40,9	86	9,8	21,5	4,7	4,8	10	1,00	Y94/290	10750	23,7	300
654	940 f 140	X	X	952	857	86,0	19,3	90	10,2	20,0	5,8	6,5	16	1,00	Y94/290	10750	23,7	300
654	1400 f 210	X	X	1415	1274	130	29,3	92	10,4	20,0	6,1	6,5	13	1,00	Y94/290	10750	23,7	300
654	2100 f 280	X	X	2115	1904	196,0	44,1	93	10,5	19,5	6,8	6,5	9	1,00	Y94/290	10750	23,7	300
656	940 f 140	X	X	950	855	82,5	18,5	87	9,8	18,0	7,9	7,5	15	1,00	Y73/292	10500	23,1	280
Under Development																		
650	1640 f 210	X	X	1640	1476	138,0	31,0	84	9,5	22,0	6,5	7,0	12	1,00	Y94/290	10750	23,7	300
654	1880 f 280	X	X	1920	1728	175,0	39,3	91	10,3	20,0	6,0	6,5	9	1,00	Y94/290	10750	23,7	300
654	2800 f 420	X	X	2800	2520	257,6	57,9	92	10,4	20,0	6,0	6,5	9	1,00	Y94/290	10750	23,7	280
656	700f140	X	X	700	630	62,0	13,9	89	10,0	17,5	8,1	9,5	15	1,00	Y73/292	10500	23,1	280

P11-02, P12-06

Packaging

Packing ID	Pallet LxWxH	Pallet No. of cylinders	Pallet Gross weight (kg)	Yarn support Type
P11-02	1200x800x1750	55	700	T650, T656 - Y73/292
V11-02	1200x800x1050	33	370	T650, T653, T654 - Y94/290

Note: Non-standard packaging is subject to special agreement.

PT1-01, PT6-01, PS1-01, V11-02

PA6 for Tyres, Mechanical Rubber Goods applications & Industrial Ropes

TYPE	Product	Heat resistant	Light protected	Titer		Breaking Strength		Tenacity		Elongation	H. air sh.	BWS	IMG	Oil	Tube	Weight		Diam.
				(dtex)	(Den)	(N)	(lbf)	(cN/Tex)	(gpd)	(%)	BISFA (%)	95°C (%)	(kn./m)	(%)	(mm)	(g)	(lbs)	(mm)
851	940 f 136	X	-	940	846	80,0	18,0	85	9,6	21,0	9,5	10,8	17	1,00	Y73/292	9100	20,1	254
851	1400 f 204	X	-	1400	1260	118,0	26,5	84	9,6	21,0	9,9	10,8	17	1,00	Y73/292	9100	20,1	254
851	1880 f 272	X	-	1880	1692	159,0	35,7	85	9,6	22,0	9,2	10,8	18	1,00	Y73/292	9100	20,1	254
851	2100 f 272	X	-	2130	1917	177,0	39,8	83	9,4	22,0	9,5	10,8	16	1,00	Y73/292	9100	20,1	254
Under development																		
853	940f136	X	-	940	840	78,0	17,5	83,0	9,4	24,0	6,1	5,9	17	1,00	Y73/292	9100	20,1	254
853	1400 f 204	X	-	1400	1260	116,2	26,1	83,0	9,4	24,0	6,1	5,9	17	1,00	Y73/292	9100	20,1	254
853	1880 f 272	X	-	1880	1692	156,0	35,1	83,0	9,4	24,0	6,1	5,9	17	1,00	Y73/292	9100	20,1	254

P11-04, P12-07

Packaging

Packing ID	Pallet LxWxH	Pallet No. of cylinders	Pallet Gross weight (kg)	Yarn support Type
P12-07	1100x800x1700	60	600	T851; T853 - Y73/292
P12-05	1100x800x2000	72	720	T851, T853 - Y73/292

Note: Non-standard packaging is subject to special agreement.

P12-05, 143

All types can be delivered plied and twisted up to 110,000dtex. 940dtex can be delivered Air- jet textured.

Bio Based yarns - PA6.10																		
TYPE	Product	Heat resistant	Light protected	Titer		Breaking Strength		Tenacity		Elongation	H. air sh.	BWS	IMG	Oil	Tube	Weight		Diam.
				(dtex)	(Den)	(N)	(lbf)	(cN/Tex)	(gpd)	(%)	BISFA (%)	95°C (%)	(kn./m)	(%)	(mm)	(g)	(lbs)	(mm)
Under development																		
951	940 f 136	X	-	940	846	70	15,7	74,5	8,4	17,5	12,5	-	15	1	Y73/292	9100	20,1	255
923	1400 f 136	X	-	1400	1260	77	17,3	55,0	6,2	30,0	13	-	15	1	Y73/292	9100	20,1	255
951	1400 f 204	X	-	1400	1260	100	22,5	71,4	8,1	17,5	13	-	15	1	Y73/292	9100	20,1	255

P11-04, P12-07

Packaging				
Packing ID	Pallet			Yarn Type
	LxWxH	No. of cylinders	Gross weight (kg)	
P12-07	1100x800x1700	60	600	T951, T953
P12-05	1100x800x2000	72	720	T951, T953

Note: Non-standard packaging is subject to special agreement.

P12-05, 143

All types can be delivered plied and twisted up to 110,000 dtex. 940 dtex - 3000 dtex can be delivered Air- jet textured.

Please contact the Technical Support for all inquiries.

PA66 for Broad and Narrow Weaving, Sewing Threads applications

TYP	Product	Heat resistant	Light protected	Titer		Breaking Strength		Tenacity		Elongation	FASE 5%	H. air sh.	BWS	IMG	Oil	Tube	Weight		Diam.
				(dtex)	(Den)	(N)	(lbf)	(cN/Tex)	(gpd)	(%)	(N)	BISFA (%)	95°C (%)	(kn./m)	(%)	(mm)	(g)	(lbs)	(mm)
640	117 f 17	X	X	120	108	7,5	1,7	63	7,1	18,7	2,1	8,7	6,6	20	0,70	Y94/290	4300	9,5	220
632	110 f 17	X	X	110	99	7,7	1,7	70	7,9	19,0	1,4	4,1	2,9	27	0,60	Y94/290	4500	9,9	212
632	110 f 34	X	X	110	99	7,1	1,6	65	7,3	22,0	1,4	4,1	3,1	26	0,60	Y94/290	4300	9,5	225
632(*)	235 f 34	X	X	235	212	17,5	3,9	74	8,4	20,0	3,0	4,1	2,7	27	0,50	Y94/290	9270	20,4	280
632(*)	470 f 68	X	X	471	424	34,5	7,8	73	8,3	20,0	6,0	4,,0	2,9	27	0,50	Y94/290	9160	20,2	280
633(*)	235 f 34	X	X	235	212	17,5	3,9	74	8,4	20,0	3,0	4,1	2,9	15	0,50	Y94/290	9270	20,4	280
633(*)	470 f 68	X	X	470	423	34,0	7,6	72	8,2	20,0	6,0	4,0	3,3	15	0,50	Y94/290	9160	20,2	280
634	235 f 34	X	X	235	212	17,5	3,9	74	8,4	18,0	3,9	8,0	6,9	30	0,50	Y94/290	9280	20,5	280
634	470 f 68	X	X	475	428	34,5	7,8	74	8,3	19,0	7,4	8,0	6,8	30	0,50	Y94/290	9160	20,2	280
641	235 f 34	X	X	235	212	17,2	3,9	73	8,3	17,6	4,2	7,5	6,4	30	0,55	Y94/290	9060	20,0	280
642	110 f 34	X	X	110	99	7,2	1,6	65	7,4	22,0	1,5	4,6	2,7	26	0,55	Y94/290	4300	9,5	225
642	235 f 34	X	X	236	212	17,5	3,9	74	8,4	20,0	3,1	4,3	3,0	27	0,50	Y94/290	4600	10,1	230
642	470 f 68	X	X	475	428	34,4	7,7	73	8,2	19,5	6,2	4,1	3,1	27	0,50	Y94/290	4600	10,1	230
681	235f34	X	X	235	212	17,2	3,9	73	8,3	23,5	2,5	6,5	6,6	24	0,70	Y94/225	4680	10,3	228
683	235f34	X	X	235	212	17,5	3,9	74	8,4	25,0	2,4	4,2	3,5	24	0,70	Y94/225	4680	10,3	232
683	470f68	X	X	470	423	34,8	7,8	74	8,4	24,9	4,8	4,1	3,8	24	0,75	Y94/225	9160	20,2	300
684	470f68	X	X	470	423	34,8	7,8	74	8,4	24,9	4,8	4,1	4,1	15	0,75	Y94/225	9160	20,2	300
Under development																			
532 SD	235f34	X	X	233	210	17,1	3,8	74	8,3	23,5	2,6	4,3	2,8	27	0,70	Y94/290	4200	9,3	220
532 SD	470f68	X	X	470	423	33,8	7,6	72	8,2	23,0	4,9	4,4	3,7	27	0,80	Y94/290	4600	10,1	230
632	156 f 34	X	X	159	143	11,9	2,7	75	8,5	19,0	2,1	4,0	3,3	30	0,60	Y94/290	4350	9,6	245
632	312 f 68	X	X	315	284	23,8	5,4	76	8,6	18,5	4,2	4,4	3,3	28	0,50	Y94/290	8800	19,4	279
683	312 f 68	X	X	315	284	24,9	5,6	79	9,0	24,5	4,0	4,4	4,0	25	0,75	Y94/225	9160	20,2	300

SD - semi dull apperance

(*) - Discontinued products

S8-01, S12-01, S16-04

Packaging					
	Pallet				
Packing ID	LxWxH	No. of boxes	No. of cylinders	Gross weight (kg)	Yarn Type
PT1-01	1200x800x1050	-	33	360	T632, T633, T634, T641, T642
S 16-04	1200x800x1050	-	64	310	T681,T683,T684
S 12-01	1200x800x1050	-	48	355	T681,T683,T684
S 08-01	1200x800x1050	-	32	300	T681,T683,T684
PT6-01	1200x800x1050	-	48	290	T632, T634, T640, T641, T642

Note: Non-standard packaging is subject to special agreement.

PT1-01, PT6-01, PS1-01, V11-02

All types at count can be delivered plied and twisted, dtex 470 also Air-jet textured.

PA66 for Air Bag applications																			
TYPE	Product	Heat resistant	Light protected	Titer		Breaking Strength		Tenacity		Elongation	FASE 5%	H. air sh.	BWS	IMG	Oil	Tube	Weight		Diam.
				(dtex)	(Den)	(N)	(lbf)	(cN/Tex)	(gpd)	(%)	(N)	BISFA (%)	95°C (%)	(kn./m)	(%)	(mm)	(g)	(lbs)	(mm)
682	350 f 136	X	X	355	320	29,0	6,5	82	9,3	23,0	4,9	5,7	5,6	30	1,00	Y75/290	10000	22,0	280
682	470 f 136	X	X	477	429	40,0	9,0	85	9,6	23,0	6,1	5,0	4,4	30	0,90	Y75/290	10000	22,0	270
682	470 f 136	X	X	477	429	40,0	9,0	85	9,6	23,0	6,1	5,0	4,7	30	0,90	Y94/290	10000	22,0	290
682	700 f 105	X	X	712	641	59,6	13,4	85	9,6	23,0	8,8	5,0	5,2	15	0,90	Y75/290	10000	22,0	270
644	470 f 68	X	X	473	426	33,2	7,5	70	7,9	21,0	6,8	6,5	5,6	30	0,60	Y94/290	8900	19,6	280
644	470 f 136	X	X	475	428	33,0	7,4	70	7,9	23,0	6,5	6,5	5,5	50	0,55	Y94/290	8900	19,6	280
Under development																			
682	235 f 68	X	X	242	218	20,9	4,7	85	10	23,0	3,5	5,0	5,1	22	1,00	Y75/290	10000	22,0	270
682	470 f 272	X	X	476	428	35	7,9	74	8	24,0	5,5	4,5	5,2	25	1,00	Y75/290	10000	22,0	270

Packaging				
Packing ID	Pallet			Yarn Type / support
	LxWxH	No. of cylinders	Gross weight (kg)	
PT1-01	1200x800x1050	33	335	T644 - Y94/290
S11-02	1200x800x1030	33	370	T682 - Y75/290

Note: Non-standard packaging is subject to special agreement.

PT 1-01, S 11-02

Nexis Fibers Twisting Capabilities

KNOTTED NETS - STANDARD TWINES

210 / n single	210 / n total	denier / single ply	denier / 3 ply	Twist 1st	Twist 2nd	Examples of constructions (twist values on request)	Nominal dtex 1st twist	Nominal dtex 2st twist
6	18	1260	3780	425	230	1400x1S425 x3Z230	1400	4200
8	24	1680	5040	400	210	1880x1S400 x3Z210	1880	5640
10	30	2100	6300	380	195	(1400+940)x1S380 x3Z195	2340	7020
12	36	2520	7560	360	185	1400x2S360 x3Z185	2800	8400
14	42	2940	8820	350	180	(1880+1400)x1S350 x3Z180	3280	9840
16	48	3360	10080	300	160	1880x2S300 x3Z160	3760	11280
18	54	3780	11340	275	145	1400x3S275 x3Z145	4200	12600
20	60	4200	12600	250	130	(1880+1400x2)x1S250 x3Z130	4680	14040
22	66	4620	13860	350	167	(1880x2+1400) S350 x3Z167	5160	15480
24	72	5040	15120	240	125	1880x3S240 x3Z125	5640	16920
30	90	6300	18900	225	120	1400x5S225 x3Z120	7000	21000
32	96	6720	20160	220	115	1880x4S220 x3Z115	7520	22560
36	108	7560	22680	200	105	1400x6S200 x3Z105	8400	25200
40	120	8400	25200	200	100	1880X5 S190 x3Z100	9400	28200
48	144	10080	30240	180	95	1400x8 S180 x3Z95	11200	33600
64	192	13440	40320	170	85	1880X8 S170 x3Z85	15040	45120
84	252	17640	52920	140	70	1880X10 S140 x3Z70	18800	56400
96	288	20160	60480	130	65	1880X12 S130 x3Z65	22560	67680
128	384	26880	80640	100	55	1880X16 S100 x3Z55	30080	90240

SPECIALTY ROPES, MARINE ROPES TWINES

Example of Constructions (twist values on request)	Final dtex	Marine finish available
940 x1	940	
1400 x2	2 800	
1400 x6	8 400	
1400 x2 x3	8 400	
1400 x2 x4	11 200	
1400 x2 x5	14 000	
1400 x6 x3	25 200	
1400 x7 x3	29 400	
1880 x2	3 760	
1880 x5	9 400	
1880 x9	16 920	
1880 x5 x3	28 200	
1880 x18	33 840	X
1400 x30	42 000	X
1880 x24	45 120	X
1880 x9 x3	50 760	
1880 x27	50 760	X
1880 x30	56 400	X
PES 1100x4 S80	4 400	

HIGH TENACITY THREADS

Example of Constructions (twist values on request)	Final dtex
110x1 Z175	110
110x1 Z300 FIX	110
110x1 Z400 x2 S400	220
235x1 Z140	235
235x1 S200 x2 Z200	470
235x1 S500 x2 Z380	500
235x1 S580 x3 Z480	750
470x1 Z150	470
470x1 Z280 FIX	500
470x1 S500 x2 Z380	910
470x1 S580 x3 Z480	1 500
700x1 Z100	710
PES 74f24x1 S800	90
PES 74f24x1 S830 x2 Z700	170
PES 150f48 x1 S570 x3 Z380	470
PES 226f96 x1 S570 x3 Z380	400
PES 275f48 x1 S570 x3 Z380	880
PES 455f96 x1 S470 x3 Z325	1 500

OTHER TWISTED YARNS

Examples of Constructions (twist values on request)	Final dtex
PES 78f24 SD Z400	78
PES 78f24 SD Z1050 FIX	78
PES 83f36 TXT SD S120	83
PES 83f36 BR TXT S450 FIX	83
PES 83f36 TXT BLK S600 FIX	83
PES 150 f48 TXT BR S400 FIX	150
PES 167f36 TXT SDS400	167
PES 167f48 TXT BLK S400 FIX	167
PES 330f72 SD TXTS120 FIX	330
PES 330f96 BR Z150 FIX	330
PES 330f72 SD TXT S120	330
PES 183f34x2 SD TXT S120	366

Possible package sizes

Knotted Nets OD mm	Knotted Nets ID mm	Knotted Nets Weight Kg	Specialty ropes, Marine ropes, High tenacity threads OD mm	Specialty ropes, Marine ropes, High tenacity threads ID mm	Specialty ropes, Marine ropes, High tenacity threads Weight Kg	Other twisted yarns
140	44	2,2	180	56	2,1	On request
180	44	3,7	200	56	3,2	
214	44	5,3	250	56	4,6	
270	73	10	270	73	9,2	
275	73	12,5	275	73	12,5	

Note: Non-standard Package weight on agreement.

- Multiple sewing threads and twine constructions capabilities : x2, x3, x4, x5
- Heatsetting capabilities : In autoclave (vapor); in hot chambers (dried air);
- Type of materials and Range of counts : Continuous Filament yarn (Polyester, Nylon, Acetate). From 74den to 100,000den = 78dtex to 110,000dtex.
- Twist level range : From 20 to 1200t/m = From 0.5 to 480 tpi
- Plying capabilities : Up to 32 ply
- Overoiling capabilities ; Marine Finish capabilities
- Airjet texturing capabilities for Polyester, Nylon. From 420den to 2700den = 470dtex to 3,000dtex.

Nexis Fibers Air-textured Capabilities

Polymer	TYPE	Product	Spundyed	Heat resistant	Light protected	Titer		Breaking Strength		Tenacity		Elongation	H. air sh.	BWS	Tube	Weight		Diam.
						(dtex)	(Den)	(N)	(lbf)	(cN/Tex)	(gpd)	(%)	(%)	95°C (%)	(mm)	(g)	(lbs)	(mm)
PA66	6827	370f136	-	X	X	370	333	18,5	4,2	50	5,7	16,5	7,5	5,2	69/290	3300	7,3	300
PA66	6827	500f136	-	X	X	490	441	23,0	5,2	47	5,3	16,0	7,0	5,2	69/290	5000	11,0	300
PA66	6327	500f68	-	X	X	510	459	23,0	5,2	45	5,1	17,0	6,0	3,3	69/290	4600	10,1	300
PA66	5327 Cxxx	510f68	X	X	X	510	459	18,0	4,0	35	4,0	15,0	5,8	3,2	69/290	4600	10,1	300
PA66	6827	730f272	-	X	X	730	657	40,0	9,0	55	6,2	16,0	7,5	5,2	69/290	3300	7,3	260
PA66	6827	1100f408	-	X	X	1100	990	59,0	13,3	54	6,1	16,0	7,3	5,2	69/290	3300	7,3	280
PA66	6507	1500f210	-	X	X	1480	1332	66,6	15,0	45	5,1	14,0	8,0	7,5	69/290	3500	7,7	235
PA6	3727	1010f136	-	-	X	1005	905	50,3	11,3	50	5,7	19,0	13,0	11,8	69/290	4600	10,1	300
PA6	0517 Cxxx	1030f136	X	-	X	1015	914	54,0	12,1	52	5,9	23,5	12,0	10,5	69/290	4600	10,1	300
PA6	0517 Cxxx	1500f204	X	-	X	1470	1323	85,0	19,1	58	6,6	23,0	12,0	10,5	69/290	4600	10,1	300
PA6	0517 Cxxx	3000f408	X	-	X	2960	2664	180,0	40,5	62	7,0	23,5	12,0	10,5	69/290	4600	10,1	300
Under development																		
PA66	5327 C-905	550f68	X	X	X	550	495	23,7	5,3	43,0	4,9	20,0	6,0	3,3	69/290	4600	10,1	280
PA66	5327H C-905	550f68	X	X	X	550	495	25,9	5,8	47,0	5,3	30,0	6,5	3,3	69/290	4600	10,1	280
PA66	5327 Cxxx	550f136	X	X	X	550	495	27,0	6,1	47,0	5,3	22,0	6,0	3,3	69/290	4600	10,1	280
PA6	3217	3000f272	-	-	X	2970	2673	106,9	24,0	36,0	4,1	30,0	10,5	13	69/290	4600	10,1	280
PA6	3217H	3000f408	-	-	X	2970	2673	109,9	24,7	37,0	4,2	22,0	11,5	13,1	69/290	4600	10,1	280

Cxxx - can be different colours spun dyed

All product can be heat set to reach higher dtex and elongation and lower shrinkage

Packaging				
Packing ID	Pallet			Yarn Type
	LxWxH	No. of cylinders	Gross weight (kg)	
TW1-09	1200x800x1050	53	270	T0517,T5327,T6827,T6327
TW1-44	1200x800x1100	48	250	T0517,T5327,T6827,T6327
TW1-47	1200x800x1100	57	290	T0517,T5327,T6827,T6327

TW1- 09, TW1- 44, TW1- 47

Note: Non-standard packaging is subject to special agreement.

All types can be delivered plied and twisted up to 110,000dtex. 700dtex and 940dtex can be delivered Air- jet textured.

Please contact the Technical Support for all inquiries.

PA6.10 & PA6.12 Polymers

PRODUCT	POLYAMIDE 6.10		POLYAMIDE 6.12	
Type	7030	7050	8030	8070
Designation	134 SH 00 D	134 SH 00 PC223	134 DH 00 D	134 DH 00 PC220

General properties

					Unit	Method
Density	1,07	1,07	1,06	1,06	g/cm^3	ISO 1183-1
Viscosity number, formic acid 90 %	138	223	138	220	ml/g	ISO 307
Water absorption, saturation in water 23°C	< 2	< 2	< 2	< 2	%	ISO 62
Moisture absorption, sat. in 23°C/50 % r.h. atm.	< 1	< 1	< 1	< 1	%	ISO 62

Thermal properties

Melting temperature, DSC	223	223	215	215	°C	ISO 11357-1/-3
Solidification point	192	192	186	186	°C	ISO 11357-1/-3

Mechanical properties

DAM - Dry As Moulded / Cond. - Conditioned

		DAM	Cond.	DAM	Cond.	DAM	Cond.	DAM	Cond.		
Tensile modulus E_t		2 100	1 600	2 400	1 650	2 470	1 660	2 000	1 600	MPa	ISO 527-2/1A/1
Yield stress σ_y		62	48	65	50	60	50	60	50	MPa	ISO 527-2/1A/50
Yield strain ε_y		4,5	21	4	20	4	18	4	19	%	ISO 527-2/1A/50
Nominal strain at break ε_{tb}		> 50	> 50	> 50	> 50	> 50	> 50	> 50	> 50	%	ISO 527-2/1A/50
Flexural modulus E_f		2 000	1 460	2 200	1 550	2 100	1 600	2 100	1 600	MPa	ISO 178
Flexural strength σ_{fM}		83	58	87	60	83	62	81	61	MPa	ISO 178
Flexural strength σ_{fC}		65	43	70	45	68	48	67	48	MPa	ISO 178
Charpy impact strength a_{cU}	23 °C	No break	No break	No break	No break	No break	No break	No break	No break	kJ/m^2	ISO 179-1/1eU
	-30 °C	No break	No break	No break	No break	No break	No break	No break	No break	kJ/m^2	
Charpy notched impact strength a_{cA}	23 °C	5	8	5	10	5	8	5	8	kJ/m^2	ISO 179-1/1eA
	-30 °C	4	5	6	7	4,5	5	5	6	kJ/m^2	

TYPE	Viscosity number	Moisture Content		Chip Weight	Chip Dimension			Melting Point	Solidification Point
	(ml/g)	(%)		(mg)	(mm)			(°C)	(°C)
PA 6.10	* Viscosity ISO-Std.307, VI (Formic Acid 90 %)								
7005	113	< 0,30	< 0,07	13	2,7	2,8	3,4	223	192
7011	125								
7031	133,5								
7030	138								
7033	147	< 0,07							
7035	154								
7037	170								
7040	189								
7050	223								
7060	248								
PA 6.12	* Viscosity ISO-Std.307, VI (Sulfuric Acid 96 %)								
8030	138	< 0,07		13	2,7	2,8	3,4	215	186
8040	160								
8050	180								
8060	200								
8070	220								
Under Development									
8005	113	< 0,07		13	2,7	2,8	3,4	215	186

Packaging				
Packaging type	Sacks / Big Bags / Octabins		Pallet	
	Dimensions (mm x mm x mm)	Net weight (kg)	L x W (mm x mm)	Number/ Pallet
Sacks	810x390x120	25	1200x800	28
Big Bags	950x950x1700	1000	1100x1100	1
Octabins	1105x1105x945	700	1140x1140	1

Note: Non-standard packaging is subject to special agreement

Locations of Nexis Fibers:

Slovakia	: Humenné, Production & Headquarters
Latvia	: Daugavpils, Production
USA	: Atlanta, GA, Sales office

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Safety Data Sheets:
http://www.nexisfibers.com/safety-data-sheets

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