



HIGH STRETCH YARNS



Velox PBT yarn takes full advantage of the special properties of polybutylene terephthalate (PBT) fibre. The Characteristics of this yarn make it perfect for manufacturing highly comfortable garments. Freedom of motion and total comfort are the features users appreciate most since they want to feel protected but not constricted. With this new yarn it is possible to produce garments capable of maintaining a comfortable micro climate around the body.

The fibre is elastic, soft and Resistant and takes dye well, even when blended with other types of fibres. Colour fastness is guaranteed for all types of usages, especially wet fastness, perspiration fastness, and decolouration resistance.

This elastic non-elastomeric yarn has high extensibility and excellent elastic recovery. It acquires these characteristics as a result of a bulking process that is three-dimensional, not only linear as it happens for ordinary elastic yarn.

Velox® Stretch is a textile yarn in all respects: it is dyeable, has good coverage because it is a textured multifilament yarn, ductile and elastic. It is also thermoplastic and, as such, can be used to manufacture stabilized fabrics. This fibre does not compete directly with PU yarn, but it is meant to be used for new textile products.



Fabrics made with Velox Fiber even when the Velox Stretch content does not exceed 30 to 35%, turn out to be ideal for making highly wearable, comfortable, body - moulding garments. The results that can be achieved using Velox Yarn for men's, women's and children's garments - for both classic and sportswear - were unthinkable until today.

Because of low water absorption (about 0.4% of H₂O), the excellent elasticity of PBT fabrics is unaffected by moisture.

Characteristic of Velox Yarn	
PROPERTIES	CHARACTERISTICS
THERMOPLASTICITY	DIEMSIONAL STABILITY Both for plan and Stretch Fabrics
ELASTIC RECOVERY	GOOD STRETCH GOOD RECOVERY LOW RESIDUALDEFORMABILITY
DUCTILITY	EASY USE AND PROCESSIG
LOW ABSORBENCY	QUICK DRY EASY CLEAN REDUCED INCREASE IN WEIGHT OF WET FABRIC
BULKINESS	COMFORT STRETCH

Velox is creating interest among stretch fabric producers, who have noticed the remarkable Performance advantages of PBT fabrics, their potentially excellent results from an aesthetic standpoint, and the ease of making garments.

Comparison of properties of Fibres from different polyester polymers: PET, PBT, PTT in bicomponent elasterell-p (elastomultiester) Fibres.

Property	PTT	PET	Velox	T400
Density of Fibres (g/cm ³)	1.35	1.39	1.32	1.36
Density of amorphic regions (g/cm ³)		1.335	1.286	
Density of chrystallic regions (g/cm ³)		1.455	1.390	
Glass transition temperature (°C)	50	74	20-40	65
Melting point from DSC (°C)	228-230	253-255	221-236	229
Temperature of thermofixation (°C)	160	177-188	182-188	160-177
Dyeing temperature (°C)	100	125-130	100	100-130
Spec. Tensile breaking stress (cN/dtex)	2.29	3.795	2.38	3.35
Breaking Elongation (%)	41	16,5	37	27
Elastic Elongation	27	21	28	37-68
Modulus of Elasticity (cN/dtex)	13.24	42.36	16.42	35.3
Yarn Crimp extension (%)	246	213	233	275
Crimp Form	irregular	irregular	irregular	irregular
Yarn livelines	twisting	twisting	twisting	stil

Application of Velox Yarns;

- **Sportswear:** truck suit, jogging clothes, swimwear, gymnastic clothing, cycle-wear
- **Underwear:** bodies, ladies, lingerie
- **Hosiery:** Sports bra, Tang, etc..
- **Outerwear:** leisure trousers, children's Stretch wear
- **Car interior:** Seat Fabric, Door panel and Head lining
- **Fancy Yarn;** twisted
- **Denim;** in weft, duel core, core spun and twisted
- **Carpet:** for pile

Features ;

- Soft and Silky Handel
- Excellent for mixing with all naturel Yarns that can be dyed ta 100 °C snd with Synthetic Yarns that are also dyed at high temperatures
- Elastic Recovery with low subsequent ductility
- Good for Knitwear, warping and weaving
- Chlorine Resistance and has Good Stretch properties and unique properties
- Excellent Tetxturing properties
- Velox does not absorb water. Once it is wet, it repels water quickly



TECHNICAL SPECIFICATIONS													
ADDITIVES				CROSS SECTION			LUSTER					DPF	
BACTERIOSTATIC "feel"	STABILIZED UV "UV guard"	TRACING "trace"	UV PROTECTION "UVP"	ROUND	TRILOBAL	SPECIAL	SEMIDULL	FULL DULL	BRIGHT	DOPE DYED	YARN DYED	MICRO 0.6 DPF	SUPER MICRO 0.3 DPF
●				●			●		●	●			

From Dtex 22 up to Dtex 1400



Softness – achieving that weathered look without compromising on the softness

Comfort Stretch – Sexy and comfortable stretch jeans leave you feeling even more confident as soon as you pull them on

Shape Retention – High performance stretch effect keeps jeans fitting great and eliminates 'baggy' knees!

Colored Denim Design – Offers more choices for cool, young fashions

The target of **Velox yarn** is not take market share from PA or PP but to change the consumers of polyester in general to regain market share partially lost by polyesters previously poor image. Once Textured;

- Velox will have slightly more power Stretch and Recovery than PA 66,PA6.
- Velox will have the best soft hand of all as Velox will be close to PES
- Velox can be easily dyed at 100 °C and can be mixed with other Natural and Synthetic fibers. It will offer stain resistance, Chlorine resistance and Good resistance

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