

Water Blocking Polyester Binder Yarns

Rev. No: 11526

WBPBYLS 2000 DTEX & WBPBYULS 2850 DTEX

Fokabeks Kablo ve Sistemleri Ltd. Şti.



'where
fiber optic happens'

TECHNICAL DATASHEET

Product	Water Blocking Low/ Ultra Low Shrink Polyester Binder Yarn
Product PN	FX WBPBYLS 2000 DTEX & FX WBPBYULS 2850 DTEX
Material	Made from high tenacity, low dusting continuous multifilament polyester yarns with soft & smooth surface. Coated with SAP particles supplies high & quick water absorption with unique swelling properties. Low/ Ultra low shrinkage & flat form. Untwisted, no harmful to humans, nonconductive & nonwoven product. Natural color.
Features & Benefits	Ideal multi-purpose product to use mainly as water blocking cross binder yarn during SZ stranding of buffer tubes in production of dry optic fiber cables to hold buffer tubes together without making stress and indentation on them. Also to be used in any layer of dry optical fiber cables as water blocking filler element such as over FRP/ water swellable tape & under jacket or metallic armour. Suitable to prevent water penetration and migration to avoid the entrance of water. Helical and/or longitudinal use is possible.

Typical Specs

Properties (@T = 23°C & RH = 50%)	Unit	Test Standard	WBPBYLS 2000 DTEX	WBPBYULS 2850 DTEX
Linear Density (g/10000 mt)	Dtex	ASTM D 1907	2000 +/- 140	2850 +/- 200
Tensile Strength	N	ASTM D 885	≥ 95	≥ 140
Elongation at Break	%	ASTM D 885	≥ 12	≥ 12
HAS @177°C, 2 minutes	%	¹	≤ 2,5	≤ 1,0
HAS @190°C, 15 minutes	%	¹	≤ 4	≤ 2
Water Absorption Capacity	g/g	²	≥ 10	≥ 70
Linear Water Absorption Capacity	g/mt	²	≥ 2	≥ 20
Weight	mt/kg	-	5000 +/- %7	3500 +/- %7

¹Sample length 1 mt measured to ruler ±0.5 mm manually straightened under minimum tension; samples in loose coils annealed in the oven at temperature of 177°C/ 190°C in 2/10/15 minutes then re-measured with ruler after cooling down to room temperature 1 h. Percentage shrinkage is calculated based on differences in length and averaged results for 3 repeated samples.

²Sample length: 1 mt, number of samples 5, submerge time: 2 min. in 0,5 l of deionized water; weigh mass before submerge; holds end of thread with tweezers and submerge in the beaker with deionized water, after 2 minutes remove the sample from beaker very gently without touching anything; hold sample vertically for 1 minutes to drip (hold it with tweezers above the beaker) and after weigh sample again; result of water absorption : $(G2 - G1)/(G1) \times 100\%$, where G1-thread weight before water absorption and G2- thread weight after water absorption.

Packaging Yarn is precision, flawless & consistent wound to strong & thick cylindrical cardboard tubes.

Standart Bobbin Dimensions *

OD (mm)	210 to 225
L (mm)	220 to 270
T (mm)	200 to 250
ID (mm)	94 & 127

* Custom design bobbin dimensions & slitted cardboard tubes available upon request. Maximum one splice is allowed per bobbin with minimum % 90 tensile strength of unspliced yarn.