

Information Sheet

ZOLTEK™ OX

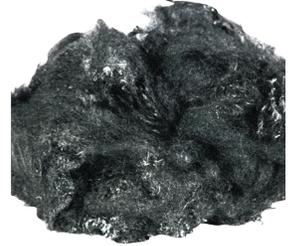
CONTINUOUS TOW

ZOLTEK OX is available as a 300,000 filament continuous tow. ZOLTEK OX tow is thermally stable, exhibits excellent chemical resistance and is electrically non-conductive. OX tow is available in crimped and uncrimped forms.



STAPLE FIBER

ZOLTEK OX is available in three deniers and a variety of cut lengths as a crimped staple fiber. OX staple fiber is produced from our OX continuous tow and enables the manufacture of the highest quality spun yarns and nonwoven fabrics on the market today.



OXIDIZED FELTS & FABRICS

100% ZOLTEK OX felt is produced from our ZOLTEK OX staple and is available in 500 gsm (15 osy), 575 gsm (17 osy), and 1,700 gsm (50osy) needle-punched nonwoven fabrics.



Fabrics produced from ZOLTEK OX yarn have a high LOI%, good strength properties, an acceptance of adhesives for lamination, and a proficiency in cut & sew applications.

OXIDIZED YARNS

Yarns produced with ZOLTEK OX are knitted or woven into fabrics used in high-performance racewear apparel, industrial reblocking blankets or high temperature belting applications.



MATERIAL OVERVIEW	STANDARD DENSITY			HIGH DENSITY	
Density	1.37 g/cm ³ (0.0495 lb/in ³)			1.40 g/cm ³ (0.0506 lbs/in ³)	
LOI	>40%			>50%	
Denier Diameter	1.7 dTex (1.5dpf) 13μ (0.51 mils)	2.2 dTex (2.0dpf) 15μ (0.59 mils)	5.0 dTex (4.5dpf) 22.5μ (0.89 mils)	1.7 dTex (1.5dpf) 13μ (0.51 mils)	2.2 dTex (2.0dpf) 15μ (0.59 mils)
Typical Cut Lengths	50mm (2.0") 60mm (2.4")	50mm (2.0") 60mm (2.4")	60mm (2.4")	50mm (2.0")	60mm (2.4")
Tenacity	18.5-23 cN/tex (2.1 - 2.6 gpd) 240 -300 MPa (34,800 psi)				
Modulus	575 - 690 cN/tex (65 - 78 gpd) 7.4 GPa (1.1 msi)				
Elongation to Break	22% - 28%				
Thermal Conductivity	0.0284 Kcal/(hr*m°C) 0.0330 W/(m*°K) 0.229 (Btu*in)/(hr*sqft*°F)				
Carbon Content	~62%				
Staple Moisture Content	13±3% (for spinning); 11±2% (for non-wovens)				
Staple Crimp Level	> 3.0 crimps/cm (>7.6 crimps/inch)				
Tow Count	300,000 filaments				

The properties listed in this datasheet do not constitute any warranty or guarantee of values. This information should only be used for the purposes of material selection. Please contact us for more details.

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