

## DuPont™ Kevlar® 49 Aramid Fiber

Category : Other Engineering Material , Composite Fibers , Polymer , Thermoset , Aramid

### Material Notes:

1140 Denier; 768 Filaments. Kevlar® 49 is a high-modulus type used primarily in fiber optic cable, textile processing, plastic reinforcement, ropes, cables, and composites for marine sporting goods and aerospace applications. General KEVLAR Information: DuPont Kevlar® poly-para-phenylene terephthalamide (aramid) has a unique combination of high strength, high modulus, toughness, and thermal stability. It was developed for demanding industrial and advanced-technology applications. It is chemically stable under a wide variety of exposure conditions; however, certain strong aqueous acids, bases, and sodium hypochlorite can cause degradation, particularly over long periods of time and at elevated temperatures. Information provided by DuPont.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Kevlar-49-Aramid-Fiber.php](http://www.lookpolymers.com/polymer_DuPont-Kevlar-49-Aramid-Fiber.php)

Physical Properties	Metric	English	Comments
Density	1.44 g/cc	0.0520 lb/in <sup>3</sup>	
Water Absorption	3.5 %	3.5 %	As shipped; Typical moisture levels on yarn as shipped; they reflect values reached at normal, moderate temperature and humidity levels following fiber production, which is a wet process.
Moisture Absorption at Equilibrium	3.5 %	3.5 %	Equilibrium from Bone-Dry Yarn; Equilibrium values are determined by bone drying the fiber and condition at 75°F (24°C), 55% RH.

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	3000 MPa	435000 psi	Breaking Tenacity
	3620 MPa	525000 psi	Epoxy-impregnated strands, ASTM D2343
Elongation at Break	2.4 %	2.4 %	
Tensile Modulus	112 GPa	16300 ksi	
Tenacity	2.08 N/tex	23.6 g/denier	
Poissons Ratio	0.36	0.36	

Thermal Properties	Metric	English	Comments
Specific Heat Capacity	1.42 J/g-°C	0.339 BTU/lb-°F	
	@Temperature 25.0 °C	@Temperature 77.0 °F	
Thermal Conductivity	0.0400 W/m-K	0.278 BTU-in/hr-ft <sup>2</sup> -°F	

Maximum Service Temperature, Air Thermal Properties	149 - 177 °C Metric	300 - 351 °F English	For long-term use Comments
Shrinkage	<= 0.100 %	<= 0.100 %	In water at 212°F (100°C) and in air at 351°F (177°C)

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China