4AC.040
Thread – Ceramic

Overview

Final Advanced Materials offers a continuous polycrystalline ceramic fibre with mechanical performances superior to that of aramid, silica, quartz and glass. Made for extreme conditions, these ceramic threads are excellent for the assembly of fire protections, electrical and chemical insulators. They also show great resistance to abrasion and are therefore ideal for sewing.

Technical Data

Properties		Unit	Value		
Material			Ceramic		
Declination			A62	A70	A72
Composition		%	Al_2O_3: 62.5 SiO_2: 24.5 B_2O_3: 13	Al_2O_3: 70 SiO_2: 28 B_2O_3: 2	Al_2O_3: 72 SiO_2: 28
Temperature	Operating	°C	1,200	1,300	1,250
	Peak		1,300	1,400	1,350

General Data

Material	Thermal resistivity	Mechanical strength	Chemical resistance
Ceramic	★★★★★	★☆☆☆☆	★★★★★

Applications

- Sewing threads for the assembly of fire protection
- Sewing threads for the assembly of dielectric and chemical insulators

Ceramic thread

Available threads

Tex	Diameter (mm)	Internal reference
100	0.25	1TEX018069 (A62)
200	1.27	1TEX004851 (A62)
330	0.5	1TEX002285 (A72)
610	0.8	1TEX002286 (A72)
620	1.0	1TEX002287 (A72)

The physical properties in this documentation are provided for informational purposes only and do not constitute a contractual commitment. Please contact our technical service if you require any additional information.

The threads are untreated, oiled or available with a heat-cleaned or heat-treated finish.

Oiling: An inorganic treatment that facilitates the sewing.

Heat cleaned: During the manufacturing process, the products are coated with a sizing or finishes made of organic polymers, that aid for the textile treatment. During initial heating, these polymers may decompose and/or ignite, releasing potentially hazardous byproducts. The treatment reduces irritation during handling, minimises airborne fibres, and decreases the amount of smoke produced at high temperatures.

Heat treated: If the product is to be exposed to hot and humid environments for an extended period, heat treatment is necessary. This heat treatment changes the crystalline structure of the fibre, preventing its degradation under such conditions.