

TECHNICAL DATA SHEET

KEPSTAN® 8010C30

POLYETHERKETONEKETONE PELLET

KEPSTAN® is a high-performance thermoplastic material, based on PolyEtherKetoneKetone (PEKK) highly stable chemical backbone. Its semi crystalline structure in solid state offers an outstanding combination of mechanical and thermal strength together with chemical and fire resistance. KEPSTAN® 8010C30 is carbon fiber reinforced compound, based on the 8000 series of KEPSTAN® resins. This grade offers the highest glass transition temperature and the highest crystallization rate, leading to very high strength and stiffness. KEPSTAN® 8010C30 is low flow grade, suitable for extrusion, compression and injection molding. KEPSTAN® 8010C30 is available in pellet form, and standard packaging is 20 kg boxes.

TYPE

PEKK-CF30

MAIN APPLICATIONS

- Industry - Composites
- Extrusion - Industrial

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding
- Profile Extrusion

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 380°C / 5 kg (716°F / 11 lb)	5 - 7	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min (Flow direction, A12)	24400	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 1 mm/min (Flow direction, A12)	247	MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 1 mm/min (Flow direction, A12)	1.5	%	ISO 527-1/-2
Compression modulus, 23°C (73°F), 1 mm/min (Flow direction)	10200	MPa	ISO 604
Compression strength, 23°C (73°F) (Flow direction, 5mm/min)	294	MPa	ISO 604
Tensile modulus, 23°C (73°F), 1 mm/min (Transverse direction, A12)	19600	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 1 mm/min (Transverse direction, A12)	190	MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 1 mm/min (Transverse direction, A12)	1.3	%	ISO 527-1/-2

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THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melting temperature, 20°C/min (DSC, 2nd Heating)	360	°C	
Glass transition temperature, 20°C/min (DSC)	165	°C	
Heat deflection temperature, 1.8 MPa	>330	°C	ISO 75-1/-2

ELECTRICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Surface resistivity, 23°C (73,4°F)	<10E+5	ohm.cm	ASTM D257
Volumic (transversal) resistivity, 23°C (73,4°F)	<10E+5	ohm/sq	ASTM D257

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Water absorption, 23°C (73°F), immersion, equilibrium (2mm)	0.4	%	ISO 62
Water absorption, 23°C (73°F) (After 24h, immersion, 2mm)	0.1	%	ISO 62
Apparent density, 23°C (73°F)	1.39	g/cm³	ISO 1183-1

PACKAGING

Available packaging:

- 20 kg / 44 lb boxes

SHELF LIFE

Indefinite when stored properly (sealed bags, appropriate UV protection and temperature)

PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: Rear 350°C / Center 375°C / Front 375°C / Nozzle 385°C (660°F / 710°F / 710°F / 725°F)
- Typical mold temperature - Injection molding: 220-240°C (430-465°F), to facilitate skin & core cristallization
- Drying time and temperature: 150°C (300°F) / 3-4 hours

SPECIAL CHARACTERISTICS

- Halogen Free Flame Retardant (HFFR)

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