

Product Texts

KEPSTAN® PEKK resin is a high performance thermoplastic material, based on PolyEtherKetoneKetone (PEKK) highly stable chemical backbone. KEPSTAN® PEKK is a unique member of the PAEK family that incorporates distinctive structural features that allow for exceptional possibilities in the control of crystallinity. These features include a low Ether/Ketone ratio and a copolymer structure incorporating Terephthalic and Isophthalic moieties.

The 6000 Series represents the pseudo-amorphous products of the KEPSTAN® family, offering the lowest melting point and the slowest crystallization behavior, while keeping Tg close to 160°C. These properties allow for lower processing temperatures (as low as 320-330°C), and lead to glassy or semi crystalline structures, depending on processing technologies and cooling conditions.

KEPSTAN® 6000 Series includes a medium flow grade, KEPSTAN® 6002, and a high flow grade, KEPSTAN® 6003, both unfilled PEKK resins designed to meet the requirements of a broad range of processing technologies, including among others extrusion, calendering, thermoforming, injection molding, fiber impregnation, rotomolding, powder coating, bonding and welding.

KEPSTAN® PEKK resin is available in pellet form as well as in powder form with different particle sizes. Standard packaging includes 20 kg boxes for pellets and 10 kg boxes for powders.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	15	cm ³ /10min	ISO 1133
Temperature	380	°C	-
Load	5	kg	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	3100	MPa	ISO 527
^[C] Charpy notched impact strength, +23°C	5.1	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Temp. of deflection under load, 1.80 MPa	139	°C	ISO 75-1/-2
^[C] Oxygen index	38	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 1MHz	3	-	IEC 62631-2-1

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	1.07	%	Sim. to ISO 62
^[C] Humidity absorption	0.44	%	Sim. to ISO 62
^[C] Density	1270	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics**Processing**

Injection Molding, Profile Extrusion, Sheet Extrusion, Coating, Blow Molding, Calendering, Transfer Molding, Thermoforming

Delivery form

Pellets

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information**Injection molding**

Drying temperature and time: 120°C for 6 to 8 hours

Processing temperature: 320 – 360°C

Temperature settings - Injection: Rear 300°C / Center 315°C / Front 320°C / Nozzle 330°C

Mold temperature (below Tg in any case): 80 - 120°C

Temperature settings - Extrusion: Zones 1/2/3/4: 290°C/ 320°C/ 330°C/ 320°C Die: 320°C