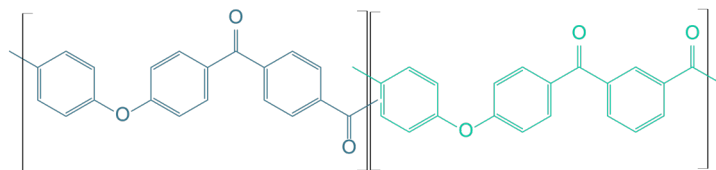


IMPEKK® 3D-G by Seqens



Technical Data – IMPEKK® 3D-G

Product description

IMPEKK® is a high-performance thermoplastic polymer.

Its chemical structure of 2 ketone groups gives IMPEKK® polymer an excellent polarity and allows for a great acceptance of functional fillers, providing a wide range of formulation choices for development of implantable medical devices.

IMPEKK® 3D-G is available in pellet form. Standard packaging is 5 kg boxes.

Material properties

	Condition	Test method	Unit	Typical Value
General				
Density	23°C	ISO 1183	g/cm ³	1.27
Color	-	-	-	Amber
Water absorption	23°C, RH50% equilibrium	ISO 62	%	0.16
	23°C, RH50%, 24 h, 2 mm		%	0.03
	23°C, immersion, equilibrium		%	0.6
	23°C, immersion, 24 h, 2 mm		%	0.2
Melt volume flow rate	380°C / 1.2 kg	ISO 1133	cm ³ /10min	9
	380°C / 1 kg		cm ³ /10min	6.1

Thermal

Melting point	20°C/min, 2 nd heating	DSC	°C	305
Glass transition	20°C/min		°C	160

Mechanical

Tensile modulus	23°C, 1 mm/min	ISO 527-1BA	GPa	3.1
Tensile strength (yield point)			MPa	90
Elongation at yield	23°C, 25 mm/min	ISO 527-1BA	%	5.5
Elongation at break			%	>30
Compression modulus	23°C, 1 mm/min	ISO 604	GPa	Tbd
Compression strength	23°C, 5 mm/min	ISO 604	MPa	Tbd
Charpy impact strength – Unnotched	23°C	ISO 179/1eU	kJ/m ²	NB
Charpy impact strength – Notched	23°C	ISO 179/1eA	kJ/m ²	5.5

All data values measured on injection molded specimens, with polymer in glassy state.

NB = no break



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Recommended processing conditions

Drying temperature and time	120°C during 8 to 10 hours
Processing temperature	320 – 360°C
Temperature settings – Injection	Rear 300°C / Centre 315°C / Nozzle 330°C
Mold temperature	80 to 120°C, below Tg in any case
Temperature settings – Extrusion	Zones 1/2/3/4 : 290°C / 320°C / 330°C / 320°C / Die : 320°C

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