PPS HPV®

POLYPHENYLENE SULFIDE MODIFIED

Material description

PPS HPV is a thermoplastic modified with solid lubricant, which is characterised by excellent sliding properties as well as high wear resistance. The material also has good mechanical values and high dimensional stability over a wide temperature range and in contact with chemicals. PPS HPV can be used continuously up to a temperature of 220° C.

Conformities

RoHS, REACH

Physical properties	Test method	Value	Unit
Density	DIN EN ISO 1183-1	1.43	g/cm3
Water absorbtion	DIN EN ISO 62	0.03	%
Sliding friction		◕	
Abrasion resistance		◕	

Mechanical properties	Test method	Value	Unit
Yield stress	DIN EN ISO 527	75	MPa
Elongation at break	DIN EN ISO 527	5	%
Tensile modulus of elasticity	DIN EN ISO 527	3700	MPa
Notched impact strength	DIN EN ISO 527	3.5	kJ/m2
Ball indentation hardness	DIN EN ISO 2039-1	180	MPa

Thermal properties	Test method	Value	Unit
Thermal conductivity	DIN 52612-2	0.3	W/(m*K)
Coefficient of thermal expansion	DIN 53752	50	10^{-6*K}-1
Operating temperature short term		260	°C
Operating temperature long term		-20 bis 220	°C
Heat deflection temperature	DIN EN ISO 75 / A	115	°C
Flammability	UL 94, 3 mm	V0	

Electrical properties	Test method	Value	Unit
Volume resistivity	IEC 60093	$>10^{14}$	Ω * cm
Surface resistivity	IEC 60093	$>10^{13}$	Ω * cm
Dielectric strength	IEC 60243	24	kV/mm
Comparative tracking index (CTI)	IEC 60112	100	CTI

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