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 179	3.5	kJ/m2
Shore Hardness D	DIN EN ISO 868	82	

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

These technical data have been determined as average values by our suppliers from many individual measurements. In all measurements, the test specimens were tested in the dry state. We pass on the data with reservation. The table does not claim to be complete or correct. Material technology is subject to constant further development. No rights or guarantees can be derived from it. Own tests are necessary because the environmental and operating conditions (humidity, temperature, mechanical forces, radiation and chemicals, etc.) set limits in the application.

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