SUSTAMIDE 6 FR

POLYAMIDE 6 FR (FLAME RESISTANT, UL94 V0)

Material description

PA 6 FR is a flame retardant, extruded polyamide. It has various approvals for use in the railway and aviation industries. It is halogen-free and has a very high oxygen index of 40% (LOI - Limiting Oxygen Index).

Conformities

RoHS, REACH

Physical properties	Test method	Value	Unit
Density	DIN EN ISO 1183-1	1.17	g/cm3
Water absorbtion	DIN EN ISO 62	3	%
Sliding friction		◑	
Abrasion resistance		◑	

Mechanical properties	Test method	Value	Unit
Yield stress	DIN EN ISO 527	82	MPa
Elongation at break	DIN EN ISO 527	3	%
Tensile modulus of elasticity	DIN EN ISO 527	3800	MPa
Notched impact strength	DIN EN ISO 179	53	kJ/m2
Shore Hardness D	DIN EN ISO 868	83	

Thermal properties	Test method	Value	Unit
Heat capacity	DIN 52612-1	1.7	kJ/(kg*K)
Coefficient of thermal expansion	DIN 53752	90	10^{-6*K}-1
Operating temperature short term		160	°C
Operating temperature long term		-20 bis 85	°C
Heat deflection temperature	DIN EN ISO 75 / A	65	°C
Flammability	UL 94, 3 mm	V0	

Electrical properties	Test method	Value	Unit
Volume resistivity	IEC 60093	10^{13}	Ω * cm
Surface resistivity	IEC 60093	10^{15}	Ω * cm
Comparative tracking index (CTI)	IEC 60112	600	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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