DSM Engineering Plastics - Property Data

Xantar® MX 1002

PC-unfilled

Impact Modified, Flame Retardant, Good Flow

Properties	Typical Data	Unit	Test Method
RHEOLOGICAL PROPERTIES			
Melt volume-flow rate	**21**	cm³/10min	ISO 1133
Temperature	**300**	°C	ISO 1133
Load	**1.2**	kg	ISO 1133
Molding shrinkage (parallel)	**0.6**	%	ISO 294-4
MECHANICAL PROPERTIES			
Tensile modulus	**2200**	MPa	ISO 527-1/-2
Yield stress	**55**	MPa	ISO 527-1/-2
Yield strain	**6**	%	ISO 527-1/-2
Nominal strain at break	**>50**	%	ISO 527-1/-2
Flexural modulus	**2300**	MPa	ISO 178
Flexural strength	**80**	MPa	ISO 178
Izod notched impact strength (23°C)	**50**	kJ/m²	ISO 180/4A
Rockwell hardness, M scale	**70**	-	ISO 2039-2
THERMAL PROPERTIES			
Temp. of deflection under load (1.80 MPa)	**115**	°C	ISO 75-1/-2
Vicat softening temperature (50°C/h 50N)	**135**	°C	ISO 306
Coeff. of linear therm. expansion (parallel)	**0.65**	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.6 mm nom. thickn.	**V-0**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	IEC 60695-11-10
Burning Behav. at thickness h	**V-0**	class	IEC 60695-11-10
Thickness tested	**3**	mm	IEC 60695-11-10
Burning Behav. 5V at thickness h	**5VB**	class	IEC 60695-11-20
Thickness tested	**2**	mm	IEC 60695-11-20
Oxygen index	**33**	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	**960**	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	**1.5**	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	**960**	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	**3**	mm	IEC 60695-2-12
Relative Temperature Index - electrical	**110**	°C	UL746B
RTI electrical (Thickness (1) tested)	**1.5**	mm	UL746B
Relative Temperature Index - electrical	**110**	°C	UL746B
RTI electrical (Thickness (2) tested)	**3**	mm	UL746B
Relative Temperature Index - with impact	**85**	°C	UL746B
RTI with impact (Thickness (1) tested)	**1.5**	mm	UL746B
Relative Temperature Index - with impact	**105**	°C	UL746B
RTI with impact (Thickness (2) tested)	**3**	mm	UL746B
Relative Temperature Index - without impact	**105**	°C	UL746B
RTI without impact (Thickness (1) tested)	**1.5**	mm	UL746B
Relative Temperature Index - without impact	**110**	°C	UL746B

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RTI without impact (Thickness (2) tested)	**3**	mm	UL746B
ELECTRICAL PROPERTIES			
Relative permittivity (100Hz)	**2.9**	-	IEC 60250
Relative permittivity (1 MHz)	**2.8**	-	IEC 60250
Dissipation factor (100 Hz)	**6.6**	E-4	IEC 60250
Dissipation factor (1 MHz)	**92**	E-4	IEC 60250
Volume resistivity	**>1E13**	Ohm*m	IEC 60093
Surface resistivity	**>1E15**	Ohm	IEC 60093
Electric strength	**29**	kV/mm	IEC 60243-1
Comparative tracking index (PLC)	**2**	class	UL 746A
OTHER PROPERTIES			
Water absorption	**0.35**	%	Sim. to ISO 62
Density	**1200**	kg/m³	ISO 1183
RHEOLOGICAL CALCULATION PROPERTIES			
Thermal conductivity of melt	**0.26**	W/(m K)	-