SLS INNOV'PA 1550

Material Data Sheet ***Preliminary***

General Properties

Measurement	*Method & Condition*	
Average Particle size	Diffraction Laser	40 to 50 µm
Powder packed density	Manufacture Method	0.5 ± 0.05
Part Density 23ºC	Manufacture Method	0.98 ± 0.05
Moisture absorption 24 hrs 50% RH, 23ºC	ASTM D570	0.5 ± 0.05

Thermal Properties

Measurement	*Method & Condition*	
Tºf Melting Point	DSC	181 < __ < 185
Tºg Glazing Point	DSC	34 ± 2
Heat Deflection Temperature at 1.82 MPa	ASTM D648	86 ± 1
Tº Process	Glazing Method	-14 ± 2

** according to machine reading* *(ex:174 ºC ± 2) **

Mechanical Properties

Measurement	*Method & Condition*	
Tensile Strength	ISO 527	45 ± 1
Young Modulus	ISO 527	1 550 ± 150
Elongation at break	ISO 527	16 ± 2
Flexural Modulus	ISO 178	1,350 ± 25
Charpy - Impact strength	ISO 180	34 ± 2
Charpy - Notched impact strength	ISO 180	6 ± 0.5
Shore Test (Shore D)	ISO R 868	68 ± 3

** statistics after several cycles >10 refresh*

Chemical Resistance

Matrix in Polyamide 12 with a good chemical resistance to alkaline, hydrocarbons, oils, gasolines, gas oil and solvents. May be attacked by acids. No through porosity with sections greater than 1.6mm thick.

Electrical Properties

Measurement	*Method & Condition*	
Volume resistivity 50% HR, 23ºC	CEI 93	1.2 E^{13}
	CEI 93	1.5 E^{15}

Surface Finish

Measurement	*Method & Condition*	
Natural Colouration	Visual	white - cream
Upper Facing processed & Blasting, surface Ra **S Ra**	ISO 4287	9 ± 1
	ISO 4287	< 1 ± 0.5

The mechanical properties can vary according to the positioning of the tensile bars, operating conditions and exposure parameters of the system used. This data is correct according to the current state of our knowledge. They do not give exact characteristics of material and do not represent a guarantee.