



versalis

Provisional Data Sheet

info.styrenics@versalis.eni.com

Sinkral[®]

ABS Resin

PD L 322

Sinkral PD L 322 by continuous Mass, is a general purpose, high flow injection moulding grade having good impact resistance coupled with an excellent gloss.

Designation: Thermoplastic ISO 2580-ABS 1, MG, 095-25-16-25

Applications

Widely used in the small and large household appliances sector, vacuum cleaners, toys, telephones and consumer electronics.

Typical processing data

Injection moulding:

- pre-drying required at 80°C for 2 - 4 hr in an air circulating oven
- melt temperature 220 - 250°C
- mould temperature 40 - 70°C

General information

Grade available in natural colour only.

The composition of this grade meets European Regulations for packaging in contact with foodstuffs.

Properties	Test conditions	Test methods	Units	Values
General				
Density		ISO 1183	g/cm ³	1.04
Water absorption	24 h / 23°C	ASTM D 570	%	0.3
Rheological				
Melt flow rate (MFR)	220°C - 10 kg	ISO 1133	g/10 min	23
Mechanical				
Tensile strength	50 mm/min	ASTM D 638	MPa	45
Strain at break	50 mm/min	ASTM D 638	%	20
Flexural strength	2 mm/min	ASTM D 790	MPa	69
Flexural modulus	2 mm/min	ASTM D 790	MPa	2350
Izod impact strength, notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	170
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	100
	-20°C - thickness 3.2 mm	ISO 180/4A	J/m	70
	-40°C - thickness 3.2 mm	ISO 180/4A	J/m	50
	+23°C - thickness 4,0 mm	ISO 180/1A	kJ/m ²	13
	-40°C - thickness 4,0 mm	ISO 180/1A	kJ/m ²	6
Charpy impact strength, notched unnotched unnotched	+23°C	DIN 53453	kJ/m ²	10
	+23°C	DIN 53453	kJ/m ²	NB
	-40°C	DIN 53453	kJ/m ²	NB
Rockwell hardness	scale R	ISO 2039/2	-	R109
Thermal				
Vicat softening temperature	10 N - 120°C/h	ISO 306/A 120	°C	99
	50 N - 120°C/h	ISO 306/B 120	°C	96
Deflection temperature under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	96
Coefficient of linear thermal expansion		ASTM D 696	10 ⁻⁵ /°C	9
Thermal conductivity		ASTM C 177	W/(K· m)	0,17
Moulding shrinkage		internal method	%	0.4 - 0.6
Flammability				
Flame behaviour (internal test)	thickness 1.5 mm	UL 94	class	HB
Glow wire test (GWT)	thickness 3,0 mm	IEC 60695-2-1	°C	650
Electrical				
Surface resistivity	dry	IEC 60093	ohm	10E14
Volume resistivity	dry	IEC 60093	ohm·cm	10E15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250	-	3,1
Dissipation factor	1000 Hz - dry	IEC 60250	-	15·10E-3

Revision n° 10

This Sheet is valid for six months from the revision date.

Issue 07/10

The technical information contained herein are provided for guidance purpose only. For more detailed information, please consult the relevant safety data sheet. The Company accepts no responsibility for the results obtained therefrom, as neither for their utilization in infringement of possible patent rights.

On the subject of the experimental product the Company reserves the right to change without prewarning the characteristics to optimize the performance and the cost