



versalis

Technical Data Sheet

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## Sinkral<sup>®</sup> ABS Resin

## B 4 Milano

B 4 Milano is an extrusion grade specially suitable in aesthetics applications. It combines thermal characteristics and rheological properties which allow the extrusion of sheets also of large size with an excellent surface finishing (very low gels content).

Designation: Thermoplastic ISO 2580-ABS 1,EGN,105-04-16-20

### Applications

Special grade for the realization of aesthetics goods that need typical ABS characteristics.

### Typical processing data

Extrusion:

- if no venting, pre-drying required at 80°C for 2 - 4hr in an air circulating oven
- melt temperature 190 - 230°C

### General information

Grade available in natural colour only.

Properties	Test conditions	Test methods	Units	Values
<b>General</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.04
Water absorption	24 h / 23°C	ASTM D 570	%	0.3
<b>Rheological</b>				
Melt flow rate (MFR)	220°C - 10 kg	ISO 1133	g/10 min	4
<b>Mechanical</b>				
Tensile strength	50 mm/min	ASTM D 638	MPa	45
Strain at break	50 mm/min	ASTM D 638	%	45
Flexural strength	2 mm/min	ASTM D 790	MPa	68
Flexural modulus	2 mm/min	ASTM D 790	MPa	1850
Izod impact strength, notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	220
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	165
	-20°C - thickness 3.2 mm	ISO 180/4A	J/m	125
	-40°C - thickness 3.2 mm	ISO 180/4A	J/m	100
	+23°C - thickness 4,0 mm	ISO 180/1A	kJ/m <sup>2</sup>	18
	-40°C - thickness 4,0 mm	ISO 180/1A	kJ/m <sup>2</sup>	9
Charpy impact strength, notched unnotched unnotched	+23°C	DIN 53453	kJ/m <sup>2</sup>	12
	+23°C	DIN 53453	kJ/m <sup>2</sup>	NB
	-40°C	DIN 53453	kJ/m <sup>2</sup>	NB
Rockwell hardness	scale R	ISO 2039/2	-	R110
<b>Thermal</b>				
Vicat softening temperature	10 N - 120°C/h	ISO 306/A 120	°C	109
	50 N - 120°C/h	ISO 306/B 120	°C	104
Deflection temperature under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	104
Coefficient of linear thermal expansion		ASTM D 696	10 <sup>-5</sup> /°C	9
Thermal conductivity		ASTM C 177	W/(K· m)	0.17
Moulding shrinkage		internal method	%	0.4 - 0.6
<b>Flammability</b>				
Flame behaviour	thickness 1.5 mm	UL 94	class	HB
Glow wire test (GWT)	thickness 3,0 mm	IEC 60695-2-1	°C	650
<b>Electrical</b>				
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