SINKRAL® C 442

ABS — Versalis S.p.A

Product Texts

Symbol according to ISO 1043-1: ABS
Designation: Thermoplastics ISO 2580-ABS 1,MGN,105-08-16-20

SINKRAL C 442 is a heat resistant injection moulding grade offering good flow and impact resistance together with an excellent thermal stability during its processing.
Applications:
Thanks to its low Yellow Index and its colour constancy, it is suitable for self-colouring, mainly in the automotive industry for interior (extruded profiles, interior trims,..) and, with propermasterbatches, for exterior parts such as grilles and rear view mirrors.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**6**	cm³/10min	ISO 1133
Temperature	**220**	°C	-
Load	**10**	kg	-
[C] Density of melt	**960**	kg/m³	-
[C] Spec. heat capacity of melt	**2150**	J/(kg K)	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**2400**	MPa	ISO 527
[C] Yield stress	**48**	MPa	ISO 527
[C] Yield strain	**3**	%	ISO 527
[C] Nominal strain at break	**30**	%	ISO 527
[C] Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**100**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**14**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**7**	kJ/m²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Glass transition temperature, 10°C/min	**110**	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**85**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**106**	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**90**	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-
Yellow Card available	**yes**	-	-

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 1MHz	**3.1**	-	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**150**	E-4	IEC 62631-2-1
[C] Volume resistivity	**1E13**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	**1E14**	Ohm	IEC 62631-3-2
[C] Electric strength	**30**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600**	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**0.6**	%	Sim. to ISO 62

[C] Humidity absorption	**0.2**	%	Sim. to ISO 62
[C] Density	**1040**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Processing conditions acc. ISO	**2580**	-	ISO ....-2
[C] Injection Molding, melt temperature	**250**	°C	ISO 294
Injection Molding, mold temperature	**60**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294
Injection Molding, pressure at hold	**70**	MPa	ISO 294

[C]: CAMPUS

Characteristics

Processing
Injection Molding, Profile Extrusion, Sheet Extrusion

Special Characteristics
Heat stabilized or stable to heat

Delivery form
Pellets

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

Injection molding

Injection Molding
PREPROCESSING
Drying conditions:
Drying temperature 80 °C
Drying time 2 - 4 h
Maximum water content 0.2 %

PROCESSING
Typical processing temperature range:
Melt temperature 230 - 270 °C
Mold temperature 40 - 70 °C

Profile extrusion

PREPROCESSING
Drying conditions if no venting:
Drying temperature 80 °C
Drying time 2- 4 h
Maximum water content 0.2 %

PROCESSING
Typical processing temperature range:
Melt temperature 190 - 230 °C

Sheet extrusion

PREPROCESSING
Drying conditions if no venting:
Drying temperature 80 °C
Drying time 2- 4 h
Maximum water content 0.2 %

PROCESSING
Typical processing temperature range:
Melt temperature 190 - 230 °C