

C 442

ABS Resin

Technical Data Sheet

Sinkral® C 442 is a heat resistant injection moulding ABS offering good flow and impact resistance together with an excellent thermal stability during processing.

Sinkral® C 442 is suitable also for extrusion of sheets with a medium heat resistant requirement.

Designation: Thermoplastic ISO 2580-ABS 1,MGN,105-08-16-20

Applications

Sinkral® C 442 is mainly used in:

- automotive

Typical processing data

Injection moulding:

- pre-drying required at 80°C for 2 - 4 hr in an air circulating oven
- mould temperature 40 - 70°C
- melt temperature 230 - 270°C

Extrusion:

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

Certification

✓ [UL 94](#) ✓ [FMVSS 302](#) ✓ [VDA 278](#) ✓ [VDA 277](#) ✓ [VDA 270](#)

Sinkral® C 442, as supplied in the original packaging, by composition is compliant to some existing regulations on plastic materials intended for food contact.

Storage

- ⚠ Store away from atmospheric agents and direct sunlight, away from sources of heat and light.
- 🕒 The product, if stored correctly, keeps its characteristics for at least fifteen months.

General information

Sinkral® C 442 is available in different versions:

- natural color
- grey shade 33014
- black 16001
- dark black 16177.

For further information, please contact Versalis directly writing to info.styrenics@versalis.eni.com.

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Property	Test Conditions	Test method	Units	Values
General				
Water absorption	24h - 23°C	ISO 62	%	0,3
Density	-	ISO 1183	g/cm ³	1,04
Rheological				
Melt flow rate	220°C - 10kg	ISO 1133	g/10'	6
Mechanical				
Strain at yield	50 mm / min	ISO 527	%	3,2
Tensile stress at yield	50 mm/min	ISO 527	MPa	48
Rockwell hardness	Scala R / R Scale	ISO 2039/2	-	110
Tensile modulus	1 mm/min	ISO 527	MPa	2350
Charpy impact strength, notched	+23°C	ISO 179/1eA	kJ/m ²	16
Izod impact strength, notched	+23°C - 4mm	ISO 180/1A	kJ/m ²	17
Izod impact strength, notched	-30°C - 4mm	ISO 180/1A	kJ/m ²	9
Thermal				
Coefficient of linear thermal expansion	-	ISO 11359-2	10 ⁻⁵ /°C	9
Thermal conductivity	-	ASTM C 177	W/(K.m)	0,17
Moulding shrinkage	-	ISO 294/4	%	0,4 ÷ 0,6
Deflection temperature under load (annealed)	1,82 MPa - 120°C/h	ISO 75 A	°C	98
Vicat softening temperature	50 N - 50°C/h	ISO 306/B	°C	104,5
Flammability				
Flame behaviour	1,5 mm	UL 94	cl.	HB
Glow wire test (GWT)	3 mm	IEC 60695-2-10	°C	650
Electrical				
Dielectric constant (relative permittivity)	1000 Hz secco/dry	IEC 60250	-	3,1
Dissipation factor	1000 Hz secco/dry	IEC 60250	-	15·10E-3
Surface resistivity	secco / dry	IEC 60093	ohm	10E14
Volume resistivity	secco / dry	IEC 60093	ohm·cm	10E15
Dielectric strength	secco / dry	IEC 60243	kV/mm	30

Please consult the relevant safety data sheet for more detailed information.

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