



versalis

Technical Data Sheet

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Sinkral[®]

ABS Resin

L 322

Sinkral 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

Sinkral L 322 is available in natural color and upon request in colored version.

This product in its natural version complies by composition with requirements of the main Regulations for plastic materials intended for food contact (including Regulation (EU) N°. 10/2011 and following amendments).

| 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 | 26 | |
| 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 | +23°C | DIN 53453 | kJ/m ² | 10 | |
| | unnotched | +23°C | DIN 53453 | kJ/m ² | NB |
| | unnotched | -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 | |