

Technical Information – ABS Virgin Standardtype

Overview

ABS Virgin Standardtype is an excellent purpose extrusion / thermoforming resin with outstanding processability. It combines medium impact with medium-high heat performance. The mass (continuous process) ABS technology ensures an ABS resin that combines excellent processability with a stable light base colour that is ideal for self-colouring.

Applications:

- Medium impact monosheet
- Co-extruded sheets

Complies with:

- U.S. FDA 21 CFR 181.32(a)(3)(i)

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ASTM D792 ISO 1183/B
Melt Mass-Flow Rate (MFR) 220°C/10.0 kg	6.6 g/10 min	6.6 g/10 min	ASTM D1238 ISO 1133
220°C/5.0 kg	1.9 g/10 min	1.9 g/10 min	ASTM D1238
230°C/3.8 kg	2.0 g/10 min	2.0 g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	0.409 in ³ /10min	6.70 cm ³ /10min	ISO 1133
Molding Shrinkage – Flow	4.0E-3 to 7.0E-3 in/in	0.40 to 0.70 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus -- 0.126 in (3.20 mm), Injection Molded	305000 psi 312000 psi	2100 MPa 2150 MPa	ASTM D638 ISO 527-2
Tensile Strength Yield Yield, 0.126 in (3.20 mm), Injection Molded	6670 psi 6240 psi	46.0 MPa 43.0 MPa	ASTM D638 ISO 527-2/50
Tensile Elongation Yield Yield, 0.126 in (3.20 mm), Injection Molded	4.1 % 2.7 %	4.1 % 2.7 %	ASTM D638 ISO 527-2/50
Flexural Modulus -- 0.126 in (3.20 mm), Injection Molded	365000 psi 305000 psi	2520 MPa 2100 MPa	ASTM D790 ISO 178
Flexural Stress 0.126 in (3.20 mm), Injection Molded Yield	10200 psi 9750 psi	70.0 MPa 67.2 MPa	ISO 178 ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength -22°F (-30°C), Injection Molded -22°F (-30°C), Injection Molded 73°F (23°C), Injection Molded 73°F (23°C), Injection Molded	3.8 ft-lb/in ² 6.2 ft-lb/in ² 8.6 ft-lb/in ² 6.2 ft-lb/in ²	8.0 kJ/m ² 13 kJ/m ² 18 kJ/m ² 13 kJ/m ²	ISO 179/2C ISO 179/1eA ISO 179/1eA ISO 179/2C
Notched Izod Impact 73°F (23°C) -22°F (-30°C), Injection Molded 73°F (23°C), Injection Molded	4.3 ft-lb/in 5.2 ft-lb/in ² 9.0 ft-lb/in ²	230 J/m 11 kJ/m ² 19 kJ/m ²	ASTM D256 ISO 180/A ISO 180/A
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature 264 psi (1.8 MPa), Annealed	214 °F	101 °C	ISO 75-2/A
Vicat Softening Temperature	216 °F	102 °C	ASTM D1525 ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate (0.0787 in (2.00 mm))	2.0 in/min	50 mm/min	ISO 3795
Flame Rating 0.06 in (1.5 mm) 0.12 in (3.0 mm)	HB HB	HB HB	UL 94
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gardner Gloss (60°)	74	74	ASTM D523

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

If you have any further questions, please do not hesitate to contact us.
with best regards

Universal Polythex Kunststoffe GmbH