

Technical Data Sheet

Type: Isoplast® 300 ETP is an engineering thermoplastic polyurethane resin.

Appearance: Clear transparent pellets.

Application: Sheet extrusion, composite structures for industrial and consumer goods, injection molded parts.

Feature: The Isoplast 300 ETP contains a special UV stabilizer package.

Typical Properties	Test Method	Units	Values
Physical			
Gardner 60° Gloss	ISO 1183	g/cm ³	1.21
Mold Shrinkage	ASTM D 955	%	0.5 – 0.6
Water Absorption, 24 hours at 73°F (23°C)	ASTM D 570	%	0.15
Mechanical			
Hardness (1sec)	ISO 868	Shore D	83
Flexural Strength	ISO 178	MPa	85
Flexural Modulus	ISO 178	MPa	1980
E- Modulus	ISO 527-2/1A/1	MPa	2130
Elongation at Yield	ISO 527-2/1A/5	%	6
Elongation at Break	ISO 527-2/1A/5	%	160
Izod Impact Strength - Notched, 23°C - Notched, -30°C	ISO A80/1A	kJ/m ²	8.0 5.2
Thermal			
Glass Transition Temperature	DSC	°C	90
Heat Deflection Temperature HDT - Method A (1.80 MPa) - Method B (0.45 MPa)	ISO 75 ISO 75	°C °C	69 79
Vicat Softening Point	ISO 360 (A50)	°C	96
Coefficient of Linear Thermal Expansion	ASTM D 696	10 ⁻⁵ mm/mm/°C	-
Optical			
Light Transmission	ASTM D 1003	%	92
Yellowness Index	ASTM D 1925	-	15

*Typical values, not to be construed as specifications. Users should confirm results by their own tests.

For mechanical and thermal properties, multipurpose test specimens according to ISO 3167 were injection molded. The test specimen were used as such or cut to the appropriate dimensions depending on the test requirement.

Please see the reverse side for processing information.

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Material Preparation: Prior to processing, Isoplast 300 ETPU should be dried in a good quality dehumidifying drier with a dew point <-30°C, for 4-6 hours at 90°C. The moisture level should be below 0.02%.

Processing Conditions: Melt flow index (230°C / 8.7 kg) = 5 - 17g / 10min.

Suggested start-up conditions - extrusion process (actual processing conditions will depend on machine type and size etc.)

	°C
Zone 1	205 - 215
Zone 2	210 - 220
Zone 3	215 - 225
Zone 4	220 - 230
Adapter (5)	225 - 235
Die (6)	230 - 240
Die Tip (7)	230 - 240

Suggested start-up conditions – injection molding process (actual processing conditions will depend on machine type and size, etc.)

	°C
Feed Zone	40
Zone 1	205 - 215
Zone 2	215 - 225
Zone 3	220 - 230
Zone 4	225 - 235
Nozzle	225 - 235
Mold Temp.	65 - 85

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