Terluran® HI-10

Acrylonitrile/Butadiene/Styrene

ABS

Product Data Sheet

05/98 TL HI-10

Terluran® HI-10 acrylonitrile/butadiene/styrene copolymer (ABS) is an injection molding grade with very high toughness and medium flow. It is intended for applications such as appliance housings and lawn and garden components requiring superior toughness.

Property Description	Method	Units	Terluran® HI-10 ABS
Density	ASTM D1505	g/cm^3	1.03
Melt Volume Rate (Melt Flow Index) 200°C/5kg (cond. G) 220°C/10kg 230°C/3.8kg (cond. I)	ASTM D1238	ml/10 min. (g/10 min.)	0.08 (0.08) 12.00 (11.76) 1.70 (1.66)
Tensile Strength at Yield, Type 1, 0.125”	ASTM D638	psi (MPa)	6,300 (42.5)
Elongation at Yield	ASTM D638	%	3.5
Tensile Strength at Break, Type 1, 0.125”	ASTM D638	psi (MPa)	4,900 (33)
Tensile Modulus, 0.125”	ASTM D638	psi (MPa)	300,000 (2,000)
Flexural Strength, 0.125”	ASTM D790	psi (MPa)	9,800 (66)
Flexural Modulus	ASTM D790	psi (MPa)	303,000 (2,050)
Rockwell Hardness	ASTM D785	R	95
Notched Izod Impact Strength, 0.125” 73°F (23°C) 0°F (-18°C) -40°F (-40°C)	ASTM D256	ft.lbs./in. (J/m)	8.4 (450) 3.4 (180) 2.3 (120)
Heat Deflection Temperature at 264 psi, 0.250" annealed 8hrs. at 85°C unannealed	ASTM D648	°F (°C)	208 (98) 187 (86)
Heat Deflection Temperature at 66 psi, 0.250" annealed 8hrs. at 85°C unannealed	ASTM D648	°F (°C)	216 (102) 201 (94)
Vicat Softening Temperature, Rate A, Loading 2	ASTM D1525	°F (°C)	201 (94)
Flammability Rating[1], 0.059" (1.5 mm) thick sample	UL 94	—	HB

[1] Flammability ratings are not intended to reflect hazards presented by these materials under actual fire conditions.

Values shown are based on limited testing of unmodified, uncolored material (unless otherwise noted) and are not intended to be used in establishing maximum or minimum ranges for specification purposes.

Terluran® HI-10 ABS

Processing

Drying
Terluran® HI-10 ABS will attract moisture from the atmosphere, with the rate depending on temperature and humidity. It is recommended that the material be dried in a dehumidifying dryer at 170°F to 175°F (75°C - 80°C) for 2 - 4 hours.

Recycling
A maximum of 20% reprocessed material can be added to the virgin product provided that it has not been contaminated or previously degraded. The reprocessed material must be dried to prevent any addition of moisture to the virgin material before processing.

Not all applications permit the use of regrind. Those applications which do allow the use of regrind should be tested for the appropriate mechanical properties per the specific molded part and application.

Processing Temperatures
Injection Molding:
Melt temperatures for Terluran® HI-10 ABS lie between 440°F and 500°F (227°C - 260°C) and the mold temperatures lie between 85°F and 140°F (30°C - 60°C).

Processing Precautions
Avoid excessive melt temperatures and long residence times as this could lead to thermal degradation.

For Technical Assistance please call:
1-800-527-TECH (1-800-527-8324) or
1-734-324-5150 if calling from outside the U.S.

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