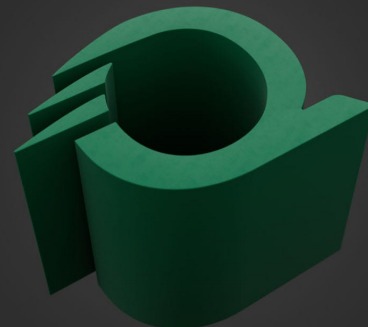




Makroblend® UT1018

(PET+PC) blend, unreinforced; impact modified, injection molding grade. Good dimensional stability; excellent low-temperature impact and chemical resistance. UL746C f2 rated.

Physical Properties

MEASUREMENT	CONDITION	Value
Density (73°F)	ISO 1183	1.22g/cm ³
Melt Volume-Flow Rate (MVR) (270°C/5.0 kg)	ISO 1133	13 cm ³ /10min
Molding Shrinkage ³ Across Flow Flow	ISO 2577	0.70 to 0.90% 0.70 to 0.90%
Water Absorption Saturation, 73°F Equilibrium, 73°F, 50% RH	ISO 62	0.70% 0.20%

Features

- Chemical Resistant
- Good Dimensional Stability
- Impact Modified
- Low Temperature Impact Resistance

Processing Method

- Injection Molding

Mechanical Properties

MEASUREMENT	CONDITION	Value
Tensile Modulus (73°F)	ISO 527-1/1	290000 psi
Tensile Stress Yield, 73°F Break, 73°F	ISO 527-2/50	7110 psi 6670 psi
Tensile Strain (Yield, 73°F)	ISO 527-2/50	4.5%
Nominal Tensile Strain at Break (73°F)	ISO 527-2/50	100%
Flexural Modulus ⁴ (73°F)	ISO 178	276000 psi
Flexural Stress ⁴ 3.5% Strain, 73°F 73°F	ISO 178	8700 psi 10200 psi

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Impact Properties

MEASUREMENT	CONDITION	Value
Charpy Notched Impact Strength -22°F 73°	ISO 179/1eA	17ft·lb/in² 31ft·lb/in²
Notched Izod Impact Strength 22°F 73°	ISO 180/A	124ft·lb/in² 29ft·lb/in²

Thermal Properties

MEASUREMENT	CONDITION	Value
Deflection Temperature Under Load 66 psi, Unannealed 264 psi, Unannealed	ISO 75-2/B	226°F 172°F
Vicat Softening Temperature	ISO 306/B120	270°F
CLTE Flow : 73 to 131°F Transverse : 73 to 131°F	ISO 11359-2	4.4E-5in/in/°F 5.0E-5in/in/°F
Thermal Conductivity 5 (73°F)	ISO 8302	1.4 Btu·in/hr/ft²/°F

Electrical Properties

MEASUREMENT	CONDITION	Value
Surface Resistivity	IEC 60093	1.0E+16 ohms
Volume Resistivity (73°F)	IEC 60093	1.0E+16 ohms·cm
Electric Strength (73°F, 0.0394 in)	IEC 60243-1	860 V/mil
Relative Permittivity 73°F, 100 Hz 73°F, 1 MHz	IEC 60250	3.20 3.10
Dissipation Factor 73°F, 100 Hz 73°F, 1 MHz	IEC 60250	2.0E-3 0.015
Comparative Tracking Index (Solution A)	IEC 60112	600 V

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Flammability Properties

MEASUREMENT	CONDITION	Value
Flame Rating	UL 94	
0.06 in		HB
0.12 in		HB

Injection Properties

MEASUREMENT	Value
Drying Temperature - Dry Air Dryer	230 °F
Drying Time - Dry Air Dryer	2.0 to 4.0hr
Suggested Max Moisture	< 0.010%
Suggested Shot Size	30 to 70%
Rear Temperature	473 to 491°F
Middle Temperature	482 to 500°F
Front Temperature	491 to 509°F
Nozzle Temperature	491 to 518°F
Processing (Melt) Temp	500 to 536°F
Mold Temperature	122 to 212°F
Back Pressure	725 to 2180 psi
Vent Depth	9.8E-4 to 3.0E-3 in
Standard Melt Temperature:	270°C
Peripheral Screw Speed	0.05 - 0.2 m/s
Hold Pressure (% of Injection Pressure):	0 - 75%

Notes

³600 bar

⁴0.079 in/min

⁵Across Flow

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