EASTMAN

Technical Data Sheet

Eastman Tritan™ Copolyester HM1060 Glass Filled

Applications

- Appliances (food contact)
- Consumer housewares - food contact (fc)
- Consumer housewares-nfc
- Small appliances non-food contact

Key Attributes

- Contact clarity
- Ease of processing
- Excellent hydrolytic stability
- Good chemical resistance
- Good heat resistance
- Good toughness
- Increased modulus or stiffness

Product Description

Eastman Tritan™ HM1060 is a glass-reinforced version of Tritan (amorphous copolyester) that provides increased modulus and strength versus unreinforced versions. Eastman Tritan™ HM1060 contains 30% glass fiber as well as a mold release agent derived from vegetable based sources. Its most outstanding features are excellent chemical resistance, toughness, heat resistance, contact clarity, ease of processing, hydrolytic stability, and increased modulus or stiffness. Combined with Tritan™ copolyester's outstanding chemical resistance and hydrolytic stability, these features give molded products improved modulus and strength in applications that are exposed to certain chemicals, aggressive cleaners, and disinfectants. Contact clarity is also advantageous for secondary operations such as laser welding.

Typical Properties

Property[a]	Test Method[b]	Typical Value, Units[c]
General Properties		
% Glass Fiber		30
Specific Gravity	D 792	1.41
Mold Shrinkage	D 955	0.001 mm/mm
Mechanical Properties (ISO Method)		
Tensile Stress @ Yield	ISO 527	104 MPa
Tensile Strength @ Break	ISO 527	104 MPa
Elongation @ Yield	ISO 527	3 %
Elongation @ Break	ISO 527	3 %
Tensile Modulus	ISO 527	7278 MPa
Flexural Modulus	ISO 178	6846 MPa
Flexural Strength	ISO 178	145 MPa
Izod Impact Strength, Notched		
@ 23°C	ISO 180	16 kJ/m^2
@ -40°C	ISO 180	13 kJ/m^2
Mechanical Properties		
Tensile Stress @ Yield	D 638	114 MPa
Tensile Stress @ Break	D 638	114 MPa
Elongation @ Yield	D 638	3 %
Elongation @ Break	D 638	3 %
Tensile Modulus	D 638	7660 MPa
Flexural Modulus	D 790	7288 MPa
Flexural Yield Strength	D 790	162 MPa
Rockwell Hardness, R Scale	D 785	116
Izod Impact Strength, Notched		122 J/m

@ 23°C	D 256	
Impact Strength, Unnotched		
@ 23°C	D 4812	995 J/m
Optical Properties		
Total Transmittance	D 1003	70 %
Haze	D 1003	99 %
Thermal Properties		
Deflection Temperature		
@ 0.455 MPa	D 648	103 °C
@ 1.82 MPa	D 648	98 °C
Typical Processing Conditions		
Drying Temperature		88 °C (190 °F)
Drying Time		4-6 hrs
Processing Melt Temperature		277-282 °C (531-540 °F)
Mold Temperature		48-76 °C (118-169 °F)

[a] *Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.*
[b] *Unless noted otherwise, the test method is ASTM.*
[c] *Units are in SI or US customary units.*

Comments

Properties reported here are based on limited testing. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.