

XT® Polymer X800RG

Röhm GmbH - Polymethyl Methacrylate Acrylic

Tuesday, January 21, 2020

General Information

Product Description

XT polymer X800RG compound is an impact-modified acrylic-based multipolymer for molding and extrusion applications.

Typical properties of XT® polymer acrylic-based multipolymer compounds are:

- outstanding thermoformability
- superior heat distortion temperatures
- excellent bonding and welding capabilities
- good impact strength
- good light transmission
- resistant to EtO, gamma and E-beam sterilization
- resistant to PVC stabilizers

The special properties of XT polymer X800RG compound are:

- high melt flow rate
- good chemical resistance

Application:

Used for food packaging and appliance parts.

General

Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Additive	• Impact Modifier		
Features	• Bondability • Chemical Resistant • E-beam Sterilizable • Ethylene Oxide Sterilizable	• Food Contact Acceptable • Good Heat Resistance • Good Impact Resistance • Good Light Transmission	• High Flow • Impact Modified • Radiation Sterilizable • Weldable
Uses	• Appliance Components • Battery Cases	• Food Packaging • Sporting Goods	
Agency Ratings	• EC 1907/2006 (REACH)	• FDA 21 CFR 176.170	• USP Class VI ¹
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	• Thermoforming

ASTM & ISO Properties ²

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.11	g/cm ³	ASTM D792
Apparent (Bulk) Density	0.65	g/cm ³	ASTM D1895
Melt Mass-Flow Rate (MFR) (230°C/5.0 kg)	11	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 to 0.70	%	ASTM D955
Water Absorption (Equilibrium)	< 0.30	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2960	MPa	ASTM D638
Tensile Strength	43.4	MPa	ASTM D638
Tensile Elongation (Yield)	4.0	%	ASTM D638
Tensile Elongation (Break)	6.0	%	ASTM D638
Flexural Modulus	2210	MPa	ASTM D790

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Mechanical	Nominal Value	Unit	Test Method
Flexural Strength	66.9	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
0°C, 6.35 mm	64	J/m	
23°C, 6.35 mm	100	J/m	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	22		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Annealed, 6.35 mm	85.6	°C	
Vicat Softening Temperature	93.9	°C	ASTM D1525
CLTE - Flow (0 to 100°C)	8.6E-5	cm/cm/°C	ASTM D696
Optical	Nominal Value	Unit	Test Method
Transmittance (3200 µm)	86.0	%	ASTM D1003
Haze (3200 µm)	5.00	%	ASTM D1003
Yellowness Index (3.20 mm)	-1.0	YI	Internal Method

Notes

¹ 301 tint only

² Typical properties: these are not to be construed as specifications.