

Product Information

Page 1 of 2

XT® polymer 375 acrylic-based multipolymer compound

Product Profile:

XT polymer 375 compound is an impact-modified acrylic-based multipolymer for molding, extrusion and blow molding 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 375 compound are:

- excellent chemical resistance
- high impact strength

Application:

Used for medical devices, food packaging, pharmaceutical packaging, rigid medical device packaging and appliance parts.

Examples:

IV accessories, paper towel dispensers, soap dispensers, sporting goods, battery cases and musical instrument casings.

Processing:

XT polymer 375 compound can be processed in injection molding machines and extrusion lines with 3- zone general purpose screws.

Packaging:

Available in 1500 lb. gaylord boxes; other packaging available on request.

Regulatory and compliance requirements:

Meets requirements of the United States Pharmacopeia Class VI in natural and 301 tints only; ISO 10993-1 in 301 tint only and FDA for food contact for all use conditions up to and including hot filled or pasteurized above 150 degrees F (e.g. Condition 21 CFR 176.170) for all food types except those containing more than 8% alcohol.

Properties:

	Parameter	Unit	ASTM-Standard	XT® polymer 375 compound
Mechanical Properties				Typical Value
Tensile Strength		psi [MPa]	D 638	7000 [48.3]
Tensile Modulus		x10 ⁶ psi [GPa]	D 638	0.37 [2.6]
Tensile Elongation @ Yield		%	D 638	4
Tensile Elongation @ Break		%	D 638	28
Flexural Strength		psi [MPa]	D 790	11 000 [75.8]
Flexural Modulus		x10 ⁶ psi [GPa]	D 790	0.35 [2.4]
Notched Izod	¼" bar @23°C	ft-lb/in [J/m]	D 256	2.0 [107]
Notched Izod	¼" bar @0°C	ft-lb/in [J/m]	D 256	1.6 [85]
Rockwell Hardness		M Scale	D 785	45
Thermal Properties				
Vicat Softening Point		°F [°C]	D 1525	217 [103]
Deflection Temperature, Annealed	1.8MPa, 0.250"	°F [°C]	D 648	186 [86]
Coeff. of Linear Therm. Expansion	32 – 312°F	in/ in/°F	D 696	0.00005
Coeff. of Linear Therm. Expansion	0 – 100°C	mm/mm/°C	D 696	0.00009
Rheological Properties				
Melt Flow Rate	230°C & 5.0 kg	g/10min	D 1238	2.6
Optical Properties				d = 3.2 mm
Light Transmission		%	D 1003	86
Haze		%	D 1003	2.5
Yellowness Index			Cyro TM	-1.0
Other Properties				
Specific Gravity			D 792	1.11
Water Absorption		% Max	D 570	0.3
Mold Shrinkage		in/in, mm/mm	D 955	0.004 – 0.007
Bulk Density		g/cc	D 1895	0.65
Recommended processing conditions				
Predrying Temperature		°F [°C]		180 [82]
Predrying Time		hour		3 – 4
Melt Temperature		°F [°C]		400 – 475 [204 – 246]
Mold Temperature		°F [°C]		120 – 170 [49 – 77]

All listed technical data are typical values intended for your guidance. They are given without obligation and do not constitute a materials specification.

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Ref. No.: 3515-1008-ACCESSDB v0160-A Date: 11/07/2008

