

XT® Polymer 250

Polymethyl Methacrylate Acrylic

Evonik Cyro LLC

Message:

XT polymer 250 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 plasticizers

The special properties of XT polymer 250 compound are:

high strength properties

good chemical resistance

Application:

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

| General Information | |
|---------------------|---------------------------------|
| UL YellowCard | E54671-244532 |
| Additive | Impact Modifier |
| Features | Bondability |
| | E-beam Sterilizable |
| | Ethylene Oxide Sterilizable |
| | Food Contact Acceptable |
| | Good Chemical Resistance |
| | Good Impact Resistance |
| | High Clarity |
| | High Heat Resistance |
| | High Strength |
| | Impact Modified |
| | Radiation Sterilizable |
| | Weldable |
| Uses | Appliance Components |
| | Battery Cases |
| | Food Packaging |
| | Household Goods |
| | Medical Packaging |
| | Medical/Healthcare Applications |
| | Pharmaceutical Packaging |
| | Sporting Goods |

| | |
|-------------------|----------------------|
| Agency Ratings | EC 1907/2006 (REACH) |
| | FDA 21 CFR 176.170 |
| | ISO 10993 |
| | USP Class VI |
| Appearance | Clear/Transparent |
| | Colors Available |
| Forms | Pellets |
| Processing Method | Blow Molding |
| | Extrusion |
| | Injection Molding |
| | Thermoforming |

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|----------|-------------|
| Specific Gravity | 1.11 | g/cm³ | ASTM D792 |
| Apparent Density | 0.65 | g/cm³ | ASTM D1895 |
| Melt Mass-Flow Rate (MFR) (230°C/5.0 kg) | 4.2 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow | 0.40 to 0.70 | % | ASTM D955 |
| Water Absorption (Equilibrium) | < 0.30 | % | ASTM D570 |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (M-Scale) | 56 | | ASTM D785 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 2960 | MPa | ASTM D638 |
| Tensile Strength | 55.2 | MPa | ASTM D638 |
| Tensile Elongation | | | ASTM D638 |
| Yield | 4.0 | % | |
| Break | 15 | % | |
| Flexural Modulus | 2760 | MPa | ASTM D790 |
| Flexural Strength | 89.6 | MPa | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact | | | ASTM D256 |
| 0°C, 6.35 mm | 48 | J/m | |
| 23°C, 6.35 mm | 64 | J/m | |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Annealed, 6.35 mm) | 87.2 | °C | ASTM D648 |
| Vicat Softening Temperature | 101 | °C | ASTM D1525 |
| CLTE - Flow (0 to 100°C) | 7.2E-5 | cm/cm/°C | ASTM D696 |
| Optical | Nominal Value | Unit | Test Method |
| Transmittance (3200 µm) | 90.0 | % | ASTM D1003 |
| Haze (3200 µm) | 2.5 | % | ASTM D1003 |

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