

## XT<sup>®</sup> polymer X800RG compound

---

### Product Profile:

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

Typical properties of XT<sup>®</sup> 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.

### Examples:

Paper towel dispensers, soap dispensers, sporting goods, battery cases and musical instrument casings.

### Processing:

XT polymer X800RG 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 301 tint only; 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 X800RG compound
<b>Mechanical Properties</b>				Typical Value
Tensile Strength		psi [MPa]	D 638	6300 [43.4]
Tensile Modulus		x10 <sup>6</sup> psi [GPa]	D 638	0.43 [3.0]
Tensile Elongation @ Yield		%	D 638	4
Tensile Elongation @ Break		%	D 638	6
Flexural Strength		psi [MPa]	D 790	9700 [66.9]
Flexural Modulus		x10 <sup>6</sup> psi [GPa]	D 790	0.32 [2.2]
Notched Izod	¼" bar @23°C	ft-lb/in [J/m]	D 256	1.9 [101.1]
Notched Izod	¼" bar @0°C	ft-lb/in [J/m]	D 256	1.2 [64]
Rockwell Hardness		M Scale	D 785	22
<b>Thermal Properties</b>				
Vicat Softening Point	264 psi	°F [°C]	D 1525	201 [94]
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	0.000048
Coeff. of Linear Therm. Expansion	0 – 100°C	mm/mm/°C	D 696	0.000086
<b>Rheological Properties</b>				
Melt Flow Rate	230°C & 5.0 kg	g/10min	D 1238	11
<b>Optical Properties</b>				d = 3.2 mm
Light Transmission		%	D 1003	86
Haze		%	D 1003	5
Yellowness Index			Cyro TM	-1.0
<b>Other Properties</b>				
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

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

This information and all technical and other advice are based on Evonik present knowledge and experience. However, Evonik assumes no liability for such information or advice, including the extent to which such information or advice may relate to third party intellectual property rights. Evonik reserves the right to make any changes to information or advice at any time, without prior or subsequent notice. EVONIK DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, AND SHALL HAVE NO LIABILITY FOR, MERCHANTABILITY OF THE PRODUCT OR ITS FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE), OR OTHERWISE. EVONIK SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. It is the customer's sole responsibility to arrange for inspection and testing of all products by qualified experts. Reference to trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. ACRYLITE, ACRYMID, CYROLITE, CYREX, CYRO, Vu-Stat and XT polymer are registered trademarks of Evonik Cyro LLC. Evonik Industries is a worldwide manufacturer of PMMA products sold under the ACRYLITE® trademark in the Americas and under the PLEXIGLAS® trademark on the European, Asian, African and Australian continents. ® = registered trademark

Evonik Cyro LLC 299 Jefferson Road, Parsippany, NJ 07054-0677 USA  
 Phone: 800-631-5384 Email: cyro.polymer@evonik.com www.cyrolite.com  
 Technical Support: visit the TechKnowlogy Center at cyro.custhelp.com

Evonik Röhm GmbH Kirschenallee 64293 Darmstadt  
 Phone +49 6151 18-4772 Email plexiglas.polymers@evonik.com www.plexiglas-polymers.com  
 Ref. No.: 3625-0209-ACCESSDB V0160-A Date: 05/28/2013