

GE
Plastics

Xylex* PC/Polyester Resin: The difference is clear



Zodiac G4 pool cleaner



GE imagination at work



Dragon Optical Rake model

Xylex* resin combines transparency, ductility, high flow, chemical resistance, and processability for increased design flexibility.

A key product from GE Plastics' innovative X-GEN* resin portfolio, Xylex resin is a polyester alloy with a virtually unbeatable combination of clarity, chemical resistance to commonly occurring chemicals, ductility, and high flow.

Prior to the breakthrough of Xylex resin, design engineers who desired improved chemical resistance generally had to sacrifice clarity, or if they wanted a special-effect additive, they had to sacrifice ductility. Not anymore. The door is open to pursue new design opportunities.

In fact, Xylex resin is not only clear but is available in a variety of Visualfx* resin looks, such as Diffusion, which features a "mysterious" look with hiding power and depth; Illuminate with an edge glow effect; or the glitter of Diamond effect. Xylex

resin is also available in an assortment of opaque colors.

That's good news for design engineers. Xylex resin is an excellent material for a variety of applications, including:

- Cellular phone covers and lenses
- Consumer electronics
- Outdoor recreation equipment, such as scooter and bicycle accessories
- Sports and safety eyewear frames
- Housewares and food service products
- Appliances and personal care

As part of our commitment to these resins, we are establishing global manufacturing capability and supply. In most places where you manufacture your products, we can meet your material needs.

Xylex Resin Product Selection Overview

Xylex Resin Grade			X8300 X8300 (HP)	X7200 X7200 (MR)	X8210	X7300	X7509 X7509 (HP)	X8409
	Test Method	Units	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value
MECHANICAL								
Tensile Stress, yield, 50 mm/min	ISO 527	Mpa	55	55	45	55	60	60
Tensile Stress, break, 50 mm/min	ISO 527	Mpa	54	56	45	55	62	60
Tensile Strain, break, 50 mm/min	ISO 527	%	>200	>150	>150	>150	133	117
Tensile Modulus, 1 mm/min	ISO 527	Mpa	1600	2000	1500	1900	2300	2180
Flexural Stress, break, 2 mm/min	ISO 178	Mpa	78	75	58	71	92	89
Flexural Modulus, 2 mm/min	ISO 178	Mpa	1700	2000	1600	2000	2260	2000
IMPACT								
Izod Impact, notched 80*10*4,+23C	ISO 180/1A	kJ/m2	8	8	45	9	9	10
Izod Impact, notched 80*10*4,- 10C	ISO 180/1A	kJ/m2	5	5	30	5	6	
THERMAL								
Vicat B/120	ISO 306	deg C	96	115	97	106	126	123
HDT/Ae, 1.82 Mpa	ISO 75/Ae	deg C	80	99	82	90	106	102
PHYSICAL								
Density	ISO 1183	g/cm3	1.17	1.18	1.16	1.18	1.20	1.20
Melt Volume Rate, 265C/2.16 kg	ISO 1133	cm3/ 10min	15	12	10	21	12	4
Mould Shrinkage, flow, 3.2 mm	ASTM D 955		0.5-0.8%	0.5-0.7%	0.5-0.8%	0.4-0.8%	0.4-0.6%	0.5-0.8%
Mould Shrinkage, xflow, 3.2 mm	ASTM D 955		0.4-0.6%	0.5-0.7%	0.4-0.6%	0.5-0.7%	0.5-0.7%	0.5-0.8%
OPTICAL								
Light Transmission (3 mm thick)	ASTM D 1003	%	88	88	83	88	88	87
Haze (1/8 inch thickness)	ASTM D 1003	%	0.9	1.1	5.1	1.3	2	1.5



Sony Ericsson P800 model

Applications	Potential Xylex Resin Grades	Typical Benefits of Xylex Resin
Mobile phone cover and lenses, personal digital assistant, peripherals, electronic devices	X7300 resin X7200 resin X8210 resin	<ul style="list-style-type: none"> High melt flow allows advanced processing in thinner walls and in-mould decorating for potentially lower part cost and reduced cycle times Impact modified with transparency Visualfx* resin with low temperature ductility "Softer" touch than standard PC
Safety, sun, and sports eyewear frames	X8210 resin X7300 resin X8300 resin	<ul style="list-style-type: none"> Clarity and Visualfx resin look with ductility for product differentiation High melt flow allows advanced processing in thinner walls and in-mould decorating for potentially lower part cost and reduced cycle times Optimized for chemical resistance, for example, to most body oils, lotions, and sun creams
Outdoor recreation equipment, sporting goods, pool, and spa accessories	X8210 resin X8300 resin	<ul style="list-style-type: none"> Clarity and Visualfx resin look with ductility for product differentiation Weatherability performances Optimized for chemical resistance, for example, to most greases, oils, and swimming pool conditioners
Housewares and food service products	X8300HP resin X7509HP resin	<ul style="list-style-type: none"> FDA and/or EUFC compliance Optimized for chemical resistance, for example, to dishwasher detergent Sound dampening effect
Appliances and personal care accessories	X8300(HP) resin X7509(HP) resin X8409 resin	<ul style="list-style-type: none"> FDA and/or EUFC compliance possible Optimized for chemical resistance, for example, to dishwasher detergents, and most body oils and lotions "Softer" touch than standard PC and sound dampening effect Various processing possible (injection molding, injection, and extrusion blow molding)

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