

# PRODUCT BULLETIN

## ZELUX® GS GAMMA STABILIZED

Medical grade Zelux GS polycarbonate is produced from resin formulated to meet the stringent performance characteristics and requirements of the healthcare industry. Suitable for gamma, E Beam, EtO gas and limited autoclaving sterilization, the resin utilizes proprietary color enhancement technology to reduce color shift caused by gamma radiation.

The following physical property information is based on typical values of the base gamma stabilized polycarbonate resin.

### Applications Include:

- Surgical equipment
- Instrument components
- Housings and covers

### Advantages of Zelux GS:

- Resin meets the requirements of USP VI and ISO 10993 biocompatibility requirements for non-implantable medical applications
- Excellent impact resistance
- Lot controlled and traceable
- Easy to machine
- Optical clarity

### Manufacturing Capabilities:

- **Standard Rod:** 1" to 3" dia.
- **Rod Length:** 48"
- **Non-Standard Rod:** <1" and >3"
- **Non-Standard Slab:** 1/2" to 6" thick

### Colors/Grades:

- Clear with blue tint

In addition to our standard capabilities, Westlake also has the ability to process custom resins in various sizes and colors with some exceptions.

Property	Units	Test Standard	Result
<b>Mechanical</b>			
Flexural Modulus	psi	ASTM D790	339,000
Flexural Strength @yield	psi	ASTM D790	14,100
Izod Impact Strength Notched @73°F	ft·lbs/in	ASTM D256	17.0
Un-Notched	ft·lbs/in	ASTM D256	60.0
Tensile Elongation @break	%	ASTM D638	135.0
Tensile Strength @break	psi	ASTM D638	9,900
@yield	psi	ASTM D638	8,900
<b>Thermal</b>			
Coefficient of Thermal Expansion	in/in/°F	ASTM E831	3.44x10 <sup>-5</sup>
Heat Deflection Temperature @66 psi (.250")	°F	ASTM D648	280
@264 psi (.250")	°F	ASTM D648	270
<b>Other</b>			
Specific Gravity	—	ASTM D792	1.20

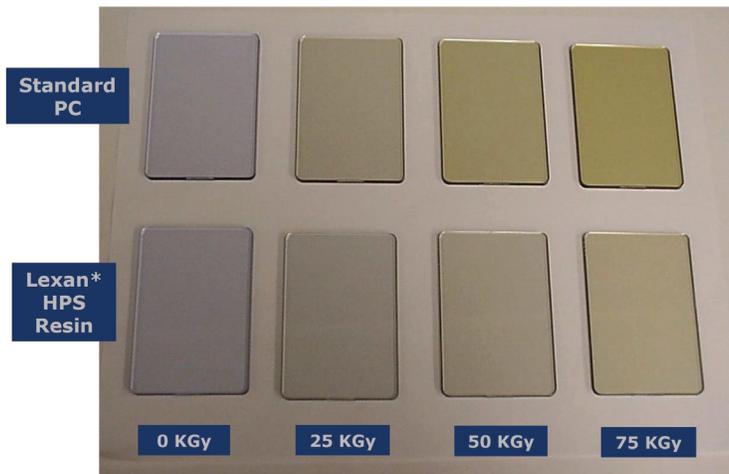


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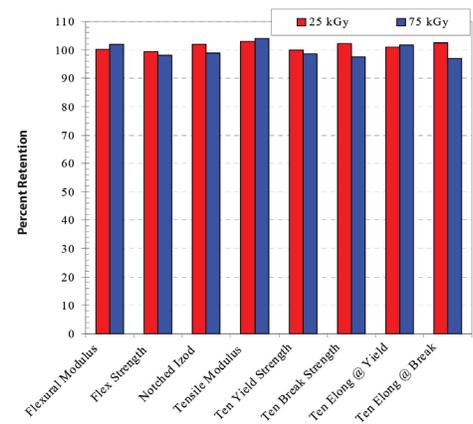
Sterilization studies show excellent property retention even at higher doses of gamma radiation and better color stability (lower YI) vs. standard polycarbonate. The special transparent tint is formulated to offset post gamma yellowing and polymer stabilizers help maintain physical properties.

### TYPICAL POST GAMMA COLOR SHIFT



\*Gamma Exposure Testing Performed On 3mm Thick Specimens

### EFFECT OF GAMMA RADIATION ON PROPERTIES



\*Physical Properties After 25 and 75 KGy Gamma Exposure

### ROD AND SHEET SIZES AVAILABLE

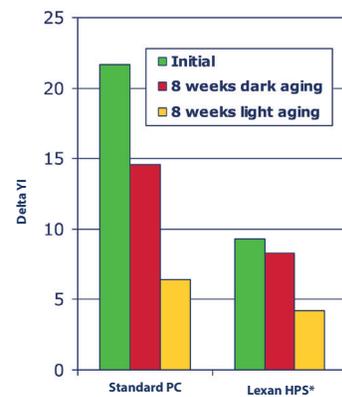
Clear Rod (blue tint)

rod diameter	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"
	2 3/4"	3"	3 1/4"	3 1/2"	3 3/4"	4"	4 1/2"	5"	5 1/2"	6"

Clear 24" x 48" Sheet (blue tint)

sheet thickness	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
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### POST GAMMA LIGHT AND DARK AGING YELLOWNESS INDEX (YI) SHIFT



\*Resin Series Designed To Limit Post Gamma Yellowing

**Call 800-243-9696 for Pricing and Minimums**

\*Testing performed by SABIC-IP and presented in Lexan® Resins for Healthcare Applications, Advanced Material Solutions for Gamma and E-beam Sterilization, February 2008