



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

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ZELUX® GS GAMMA STABILIZED

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.



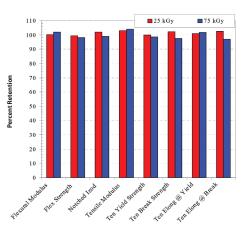
TYPICAL POST GAMMA COLOR SHIFT

*Gamma Exposure Testing Performed On 3mm Thick Specimens

ROD AND SHEET SIZES AVAILABLE

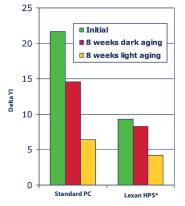
	3/8"	1/2"	3/4"	1″	1 ¹ / ₄ "	1 ¹ / ₂ "	1 ³ /4"	2″	2 ¹ / ₄ "	2 ¹ / ₂ "
rod diameter	2 ³ / ₄ "	3″	31/4"	31/2"	3 ³ / ₄ "	4″	4 ¹ / ₂ "	5″	5 ¹ / ₂ "	6
Clear 24" x 48" She	et (blue ti	nt)								
sheet thickness	1/2	″ ³ /4	" 1'	″ 1¹/	(." 1 ¹ /-	," 2"	2 ¹ /2	." 3'	"	

EFFECT OF GAMMA RADIATION ON PROPERTIES



*Physical Properties After 25and 75 KGy Gamma Exposure

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



