

Lennite®

(ultra-high molecular weight polyethylene)

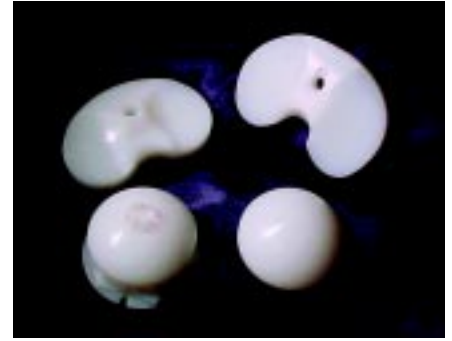
Medical grade Lennite UHMWPE is produced from premium resins in accordance with ASTM specification F648 and International Standard ISO 5834-1 for surgical implants. Westlake Plastics' proprietary manufacturing processes and stringent quality control permit a well consolidated and consistent fabricated form. Recommended sterilization techniques include EtO gas, cold sterilization, and limited gamma irradiation.

The following physical property information is based on actual tests performed on Lennite UHMWPE.

Property (Type I)	Units	Requirement	GUR1020 Result
Density	kg/m ³	927 to 944	936
Ash Content	mg/kg	150 (max.)	55
Tensile Strength			
@yield	MPa	21 (min.)	22.9
@break	MPa	35 (min.)	54.3
Elongation @break	%	300 (min.)	430
Izod Impact Strength	kJ/m ²	140 (min.)	213
Charpy Impact Strength	kJ/m ²	180 (min.)	284

Property (Type II)	Units	Requirement	GUR1050 Result	GUR1150 Result
Density	kg/m ³	927 to 944	934	934
Ash Content	mg/kg	150 (max.)	55	91
Tensile Strength				
@yield	MPa	19 (min.)	22.7	22.8
@break	MPa	27 (min.)	51.9	51.5
Elongation @break	%	300 (min.)	390	360
Izod Impact Strength	kJ/m ²	73 (min.)	136	121
Charpy Impact Strength	kJ/m ²	90 (min.)	149	124

Westlake Product Bulletin



Applications Include:

- Total hip and knee joint prosthesis
- Various other surgical implants
- Medical devices

Advantages of Medical Grade Lennite UHMWPE:

- Lot controlled and traceable
- ASTM F-648 and ISO 5834-1/2 compliant
- Available stock material in Type I and II resins
- Stress relieved
- Custom certifications available

Manufacturing Capabilities:

Rod: 1/2" to 4" diameter
(1/4" increments)

Rod length: 60" and 120"

Colors/Grades:

Standard: natural

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