



## 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 tests performed on ram extruded Lennite UHMWPE.

### 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", 1" - 3 1/2" dia.  
(1/4" increments 1" - 2")  
(1/2" increments 2" - 3 1/2")
- **Rod Lengths:**  
60" & 120"

### Colors/Grades:

- Natural

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

Property (Type I)	Units	Requirement	GUR1020 Result
Density	kg/m <sup>3</sup>	927 to 944	.932
Ash Content	mg/kg	150 (max.)	58
Tensile Strength			
@yield	MPa	21 (min.)	22.6
@break	MPa	35 (min.)	49.9
Elongation @break	%	300 (min.)	405
Izod Impact Strength	kJ/m <sup>2</sup>	126 (min.)	NB
Property (Type II)	Units	Requirement	GUR1050 Result
Density	kg/m <sup>3</sup>	927 to 944	928
Ash Content	mg/kg	150 (max.)	60
Tensile Strength			
@yield	MPa	19 (min.)	20.5
@break	MPa	40 (min.)	44
Elongation @break	%	340 (min.)	381
Izod Impact Strength	kJ/m <sup>2</sup>	73 (min.)	NB