

# Ultraclear™ 480

Thermoplastic

Hapco Inc.

## Message:

ULTRACLEAR is a series of water clear casting resins with excellent physical properties, such as:

- Optically Clear Color
- UV Resistant/Non-yellowing
- High Heat Distortion (HDT)
- High Tensile Strength
- Excellent Impact
- Low Viscosity

General Information			
Features	Good UV Resistance		
	High Clarity		
	High Heat Resistance		
	High Impact Resistance		
	High Tensile Strength		
	Low Viscosity		
Uses	Lenses		
	Medical Devices		
	Medical/Healthcare Applications		
Appearance	Clear/Transparent		
Forms	Liquid		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm <sup>3</sup>	ASTM D4669
Molding Shrinkage - Flow	0.20 to 0.60	%	ASTM D2566
Weight - per cubic inch	17	g	
Gel Time <sup>1</sup> (25°C)	10.0	min	ASTM D2971
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	80		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2100	MPa	ASTM D638
Tensile Strength	51.7	MPa	ASTM D638
Tensile Elongation (Break)	13	%	ASTM D638
Flexural Modulus	1340	MPa	ASTM D790
Flexural Strength	66.9	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	32	J/m	ASTM D256
Unnotched Izod Impact	200	J/m	ASTM D256

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	73.0	°C	
1.8 MPa, Unannealed	59.0	°C	
Optical	Nominal Value		Test Method
Refractive Index	1.585		ASTM D542
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components			
Part A	Mix Ratio by Weight: 100, Mix Ratio by Volume: 100		
Part B	Mix Ratio by Weight: 100, Mix Ratio by Volume: 100		
Thermoset Mix Viscosity (25°C)	600	cP	ASTM D4878
Demold Time (21°C)	300 to 480	min	Internal Method
Post Cure Time (70°C)	8.0 to 16	hr	
NOTE			
1.	100 g		

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#### Recommended distributors for this material

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