



## QUADRANT

### PROTEUS® HOMOPOLYMER

For General Purpose Applications in Wet and Dry Environments Where Ease of Fabrication is Important

#### Product Profile:

- Appropriate for applications to 180°F (82°C)
- Resists most acids, alkalis and solvents
- Meets FDA 21CFR 177.1520
- Thermoforming performance
- USDA, NSF and 3-A Dairy Complaint (natural color only)
- Chemical- and corrosion-resistant
- No moisture absorption



This crystalline material is noted for its high strength-to-weight ratio, excellent chemical resistance and high performance in thermoforming and corrosive environments.

Proteus® Homopolymer is "natural" in color, stress relieved and is available in three sheet sizes:

- 48" x 96" with gauge sizes ranging from 1/16" to 3"
- 48" x 120" with gauge sizes ranging from 1/8" to 2"
- 60" x 120" sheets with gauge sizes ranging from 1/8" to 1"

Industries	Applications
Chemical processing & storage	Orthotic and prosthetic devices
Medical	Plating and anodizing process equipment
Metal finishing	Plenums and manifolds
	Pump components
	Secondary containment
	Storage tanks
	Valve bodies

Dallas, Texas (Corporate Offices)  
 Houston, Texas  
 Brandon, Mississippi

phone 800-782-1836 / 214-239-3870  
 phone 800-282-4388 / 713-979-0660  
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Data Sheet No: 10510  
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DATA SHEET			
PROTEUS® Natural Homopolymer Polypropylene			
Property	Units	Test Method	Typical Average Values
<b>Mechanical</b>			
Specific Gravity, 73° F	-	ASTM D792	.91
Yield Point, 73° F	psi	ASTM D638	4800
Elongation at Yield, 73° F	%	ASTM D638	14
Tensile Break, 73° F	psi	ASTM D638	4800
Tensile Elongation (at break), 73° F	%	ASTM D638	400
Tensile Modulus of Elasticity, 73° F	psi	ASTM D638	190000
Flexural Modulus of Elasticity, 73° F	psi	ASTM D790	195000
Izod Impact (notched), 73° F	ft.lb./in.	ASTM D256 Type "A"	1.2
Hardness, Durometer, Shore "D" Scale, 73° F	-	ASTM D2240	78
<b>Thermal</b>			
Heat Deflection Temperature 264 psi	°F	ASTM D648	210
Melting Point (crystalline) peak	°F	ASTM D3418	327
Continuous Service Temperature in Air (Max.)(1)	°F	-	180
<b>Electrical</b>			
Volume Resistivity	Ohm-cm	ASTM D257	>10 <sup>15</sup>
Surface Resistivity	Ohm	ASTM D257	>10 <sup>15</sup>
Flammability @ 3.1 mm (1/8 in.) (3)	-	UL94	HB
<b>Miscellaneous</b>			
Water Absorption	% by wt.	ASTM D570(2)	

- (1) Data represent Quadrant's estimated maximum long-term service temperature based on practical field experience.
- (2) Specimens: 1/8" thick x 2" diameter or square.
- (3) **Estimated rating based on available data.** The UL 94 Test is a laboratory test and does not relate to actual fire hazard. Contact Quadrant for specific UL "Yellow Card" recognition number.

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