SOREA
Architectural Acrylic Casting

TECHNICAL GUIDE

Resin Comparison Overview

MATERIAL	ACRYLIC	PETG
Resin Type		
FLAMMIBILITY PROPERTIES		
Fire Rating (ASTM D635-03)	PASS CC2	PASS CC1
Smoke Density (ASTM D2843-99	Pass, 4.8% (75% max)	
Rate of Ignition (ASTM D1929-96)	Pass, 716°F (380°C) [min 650°F (343°C)]	Pass, 56.6% (75% max) [min 650°F (343°C)]
MECHANICAL PROPERTIES		
Specific Gravity*	1.19	1.27
Water Absorption (24hr Immersion)	0.40%	0.20%
Impact Resistance Notched*	0.28 ft-lbs/in (14.9 J/m)	1.7 ft-lbs/in (88 J/m)
Stain / Chemical Resistance**	Good	Good
Formability*	Good	Excellent
Bonding	Good	Fair
Renewable Surface	Excellent	Fair
OPTICAL/AUDIO PROPERTIES		
UV Stability*	Excellent	Fair
Light Transmittance*	92%	91%
Optical Refractive Index	1.49	1.57
THERMAL PROPERTIES Thermoforming Temperature	210-220°F (99-104°C)	180-200°F (82-93°C)
Deflection Temperature [264 psi (3640 Mpa)	203°F (95°C)	164°F (74°C)

**Applies to the resin itself. Results may vary for specific encapsulated materials*
*** Edges of panels must be sealed for resistance*

5511 1st Ave S Seattle, WA 98108 PH:206.284.7329
www.sorea.net Email: Sales@sorea.net