

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*

NOTE- The data provided pertains to the base raw material only as used in the manufacture of Sorea material. These Suggestions and data are based on information we believe to be reliable. The data is offered in good faith, but without guarantee, as conditions and method of use are beyond our control. We recommend prospective users determine the suitability of Sorea materials and suggestions before adopting on a commercial scale. In no case is Sorea liable for direct, consequential, economic or other damages. Sorea disclaims all other warranties, expressed or implied, including the warranty of merchantability and fitness for a particular purpose. Sorea does not recommend using its products to support human loads.