ROYALITE[®] R71/920



ROYALITE® R71/920 thermoplastic sheet is a fire-rated*, polycarbonate ABS product that combines very high impact strength, high tensile strength and stiffness with excellent formability and exceptional heat resistance. It offers an excellent combination of mechanical and thermal properties and is formulated for high dimensional stability, rigidity, easy processing and consistent color control.

APPLICATIONS:

The combination of properties provided by ROYALITE® R71/920 makes it the preferred choice for applications such as telecommunications equipment, instrument panels, general office equipment and electronics, both consumer and industrial.



FIRE-RATED* **POLYCARBONATE ABS SHEET**

PROCESSING:

ROYALITE® R71/920 is thermoformable by conventional methods at sheet temperatures between 330°F-380°F. It is recommended that heating-up time be kept to a minimum by using an infrared heater on both sides. Drying prior to processing is essential to ensure uniform surface quality. Recommended drying time is at least four hours at approximately 220°F.

COLORS & TEXTURES:

ROYALITE® R71/920 is offered in a tremendous range of colors with a multitude of textures ranging from smooth to deep-textured. This Royalite product can be capped with calendered film, which provides exceptional color and gloss control, plus outstanding grain retention after forming.

FINISHING:

With conventional plastic fabricating tools, it is possible to machine, saw, drill, rout and grind this rigid Royalite sheet. It can be punched and die-cut, and paints can be applied by spray, silk screen or roller coating. For optimum performance, paints formulated for plastics must be used. As long as proper procedures are followed, this material can be joined to other materials, or itself, by adhesive bonding, heat or ultrasonic welding, and by mechanical fasteners such as screws, rivets and staples. Please contact Royalite for specific recommendations

AVAILABILITY:

ROYALITE® R71/920 is available in various custom colors, grain textures, gauge and blank sizes subject to normal production scheduling. Current maximum width available is 48". The available gauge range is 0.062"- 0.250". Widths and gauges outside the standard are available with some restrictions.

SUMMARY OF PROPERTIES:

ROYALITE® R71/920 thermoplastic sheet provides a firerated*, polycarbonate ABS product that combines very high impact strength, high tensile strength and stiffness with excellent formability and exceptional heat resistance.

PHYSICAL PROPERTIES (units)	AVERAGE Values	TEST METHODS
Specific Gravity	1.19-1.24 †	ASTM D-792
Tensile Strength, machine direction (psi)	8000	ASTM D-638
Flexural Strength (psi)	12000	ASTM D-790
Flexural Modulus (10 ⁵ psi)	3.3	ASTM D-790
Impact Strength @ 72°F (ft-lb/in notch) Notched Izod	8.0	ASTM D-256
Hardness Rockwell Scale R	110	ASTM D-785
Heat Deflection @ 264 psi Temperature (annealed) (°F)	240	ASTM D-648
Thermoforming Low (°F) Temperature Range High (°F)	330 380	Machine
Mold Shrinkage (in/in)	0.007-0.009	
Flammability Rating*: Underwriters Lab Underwriters Lab Underwriters Lab	Listed ⁽¹⁾ Listed ⁽²⁾ Listed ⁽³⁾	UL94V-0 UL94-5VA UL94-5VB

- † Color Dependent
- ¹ All colors at 0.060" (1.52mm) and above
- ² All colors at 0.102" (2.59mm) and above. ³ All colors at 0.089" (2.56mm) and above.
- * This term and any corresponding data refer to typical performance in the specific tests indicated and should not be construed to imply this material's behavior under actual fire conditions.

NOTE: The data listed herein reflect typical sheet properties. They are the latest available at the time of publication and are reliable to the best knowledge of Royalite. The properties are listed solely to give general guidance and are not to be construed as a warranty or representation for which Royalite assumes responsibility.

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