

Royalite[®] R24



Royalite[®] R24 is proprietary Fire Rated ABS thermoplastic sheet product. R-24 is UL listed 94HB@ .060 and above in all colors. In addition, R-24 is in conformance with MVSS 302 at .050 and above. R24 combines high impact strength and stiffness with excellent formability. It also has an enhanced heat deflection temperature of 210 degrees F. Manufactured utilizing our proprietary cap sheet technology, R24 provides outstanding color and gloss control and superior grain retention after thermoforming.

TARGET MARKETS & APPLICATIONS

The combination of flame rating, toughness and durability makes Royalite[®] R24 the perfect choice for applications when a ULHB rated material is called for. Its excellent balance of properties makes it suitable for wide variety of applications such as business machine housing, medical equipment, and electronics enclosures. The superior forming characteristics of R24 also make it a great material for the complex configurations.

FINISHING

You can machine, saw, drill, rout and grind this rigid sheet with conventional plastics fabricating equipment. It can be punched and die-cut, sanded and polished easily. So long as proper procedures are followed, you can join it to itself, or other materials, by adhesive bonding, ultrasonic welding, and by mechanical fasteners. Please contact Royalite for specific recommendations.

COLORS AND TEXTURES

Royalite[®] 24 sheets can be supplied in a variety of colors and over 16 different grain patterns to meet specific aesthetic requirements. This Royalite product is normally capped with calendered film, which provides exceptional color and gloss control, plus outstanding grain retention after forming.

AVAILABILITY

Royalite[®] R24 is available in various custom colors, grain textures, gauges, and blank sizes subject to normal product scheduling. Some restrictions apply to widths greater than 55".

Sheet Size – maximum width is 60"

Gauges – 0.047" to 0.250"





PROCESSING

You can process R-24 rigid thermoplastic sheet on virtually all thermoforming equipment from high-volume, multi-station rotary machines to hand-operated presses. It is readily hand-formed for prototyping, and is suitable for use with aluminum and epoxy molds and fine-grain wood molds such as mahogany. Care must be taken in forming so as not to overheat the sheet. Stock temperatures of approximately 340-390°F are recommended for proper forming. As with any thermoplastic material, care should be taken to account for the coefficient of thermal expansion when considering design parameters. Please contact Spartech for data relating to your specific application and equipment.

TYPICAL PROPERTIES

PROPERTY	TEST METHOD	UNITS	DATA‡
Specific Gravity†	D-792		1.08 – 01.02†
Tensile Strength, machine direction	D-638	(psi)	5,000
Impact Strength @73°F Notched Izod	D-256	(ft-lbs/in notch)	7.5
Impact Strength @73°F Garner Drop Weight	D-5420	(in-lbs)	320
Flexural Strength	D-790	(psi)	7,800
Flexural Modulus	D-790	(kpsi)	280
Hardness	D-785	Rockwell Scale R	98
Heat Deflection Temperature (annealed) @264 psi	D-648	(°F)	210
Thermoforming Temperature Range		(°F)	340-395
Mold Shrinkage		(in/in)	0.005 – 0.007

FLAMMABILITY RATING*

Underwriters Lab	UL 94HB	Listed .060
Motor Vehicle Standard	MVSS 302	Passes

‡ All values based on 0.125" thickness unless otherwise noted.

† Color Dependent

* 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. We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used. We accept no responsibility for results obtained by the application of this information or the safety and suitability of our products, either alone or in combination with other products. Users are advised to make their own test to determine the safety and suitability of each such product or product combination for their own purposes. We sell the products without warranty. Buyers and users assume all responsibility and liability for loss or damage arising from the handling and use of our products, whether used alone or in combination with other products.

For additional information, please contact Spartech Corporation at (888) 721-4242 or visit our web site at www.spartech.com.

Page 2 of 2

Use and conditions and applicable laws may differ from jurisdiction to jurisdiction, and may be subject to change at any time. Customers are responsible for determining whether products and information are appropriate for their use. Spartech Corporation and its subsidiaries assume no liability for the accuracy or completeness of information contained herein, and all information is subject to change without notice. No freedom from infringement of any patent, trademark or copyright owned by Spartech or any of its subsidiaries is to be inferred. **NO WARRANTIES, EXPRESS OR IMPLIED, ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.**

