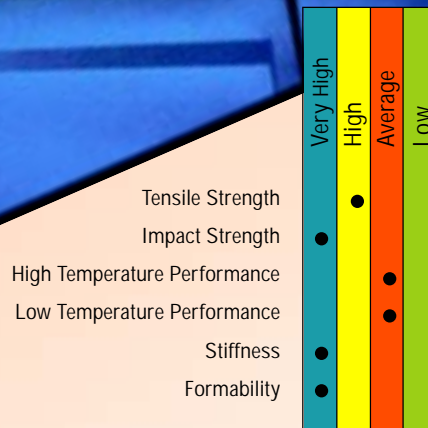
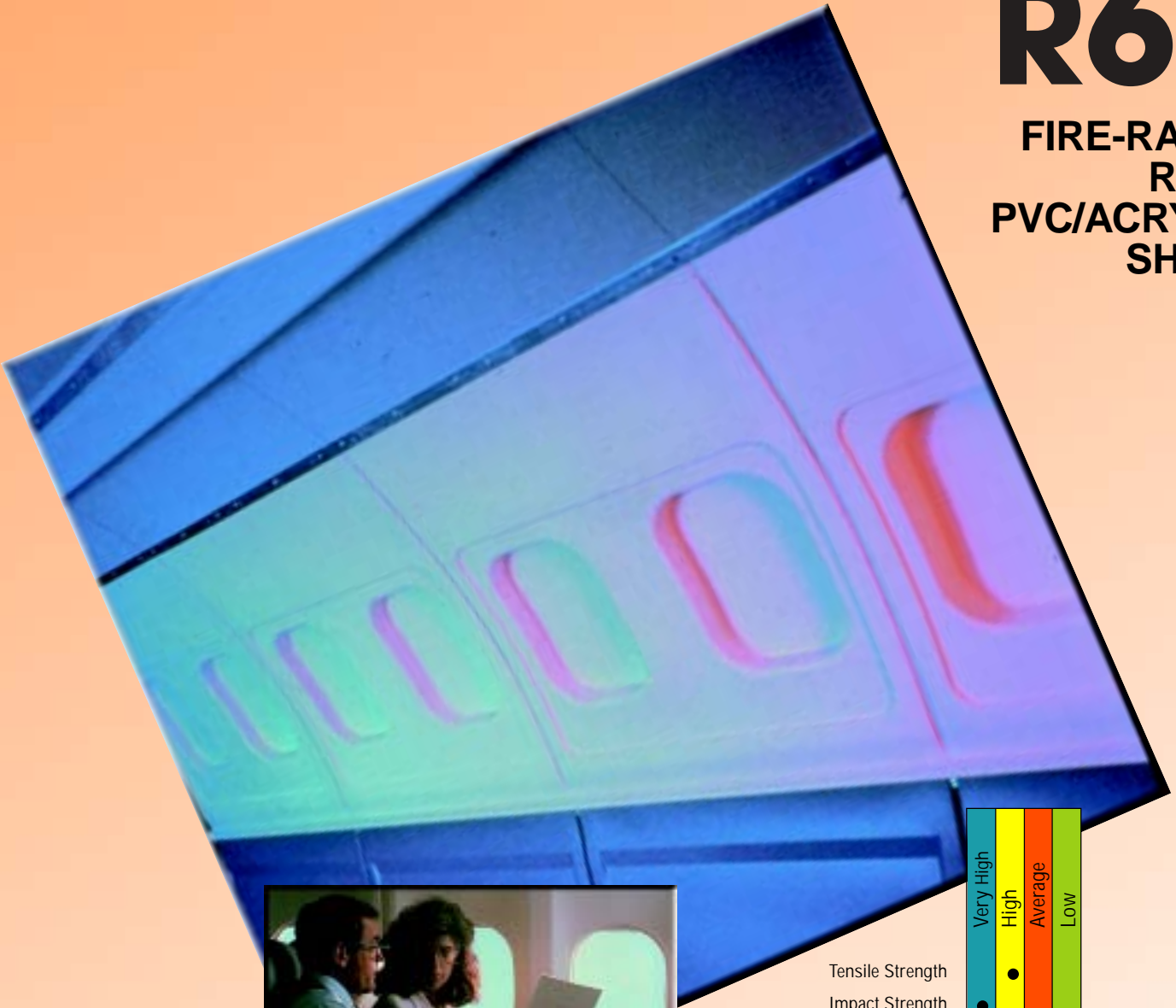


ROYALITE®

R60

FIRE-RATED*
RIGID
PVC/ACRYLIC
SHEET



ROYALITE® R60 is a rigid, fire-rated, proprietary thermoplastic sheet specifically formulated to meet the requirements of the FAR 25.853a flammability* test. It provides outstanding color, gloss and grain control while virtually eliminating grain and gloss retention problems after forming that are often found in other fire-rated materials. ROYALITE® R60 combines very high impact strength and stiffness with excellent formability in deep draws. It has high resistance to normal food and environmental stains, and its cleanability with common cleaners is simply outstanding.

APPLICATIONS:

Currently, ROYALITE® R60 is being used in aircraft interiors that must meet FAR 25.853a. However, it is also ideal for a wide range of applications, such as computers, electronic instrumentation and business machine housings where rigidity in thin gauges, good flammability rating, high impact strength and excellent color, gloss and grain control are required.

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PROCESSING:

ROYALITE® R60 thermoplastic sheet can be processed 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 since ROYALITE® R60 is a PVC/acrylic alloy. Stock temperatures of approximately 330°F-380°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 Royalite for data relating to a specific application or equipment.

COLORS & TEXTURES:

ROYALITE® R60 is offered in a tremendous range of colors with a multitude of textures ranging from smooth to deep-textured. This Royalite product is normally 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, ultrasonic welding and by mechanical fasteners such as screws and rivets. Please contact Royalite for specific recommendations.

AVAILABILITY:

ROYALITE® R60 rigid PVC/acrylic sheet is available in a wide variety of economy, standard and custom colors, grain textures, gauges and blank sizes subject to normal production scheduling. Maximum width available is 54". Gauges range from 0.028" to 0.312". Widths and gauges outside the standard are available with some restrictions.

SUMMARY OF PROPERTIES:

ROYALITE® R60 thermoplastic sheet is a rigid, fire-rated* PVC/acrylic product that combines very high impact strength, tensile strength and stiffness with good formability.

PHYSICAL PROPERTIES (units)	AVERAGE VALUES	TEST METHODS
Specific Gravity	1.30-1.38 †	ASTM D-792
Tensile Strength, machine direction	(psi) 5900	ASTM D-638
Flexural Strength	(psi) 9600	ASTM D-790
Flexural Modulus	(10 ⁶ psi) 3.3	ASTM D-790
Impact Strength @ 72°F	(ft-lb/in notch) 14.0	ASTM D-256
Notched Izod @ -20°F	(ft-lb/in notch) 1.0	
Hardness	Rockwell Scale R 100	ASTM D-785
Heat Deflection Temperature (annealed) @ 264 psi	(°F) 155	ASTM D-648
Thermoforming Temperature Range	Low (°F) 330 High (°F) 380	Machine
Mold Shrinkage	(in/in) 0.005-0.007	
Flammability Rating*: Motor Vehicle Standard FAA 60s vert burn	Passes Passes ⁽¹⁾	FMVSS 302 FAR 25.853a

† Color Dependent

¹ FAR Part 25, Appendix F, Part I, Section (a)(1)(i)

* 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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