



ALPOLIC[®] RF

The second generation
reflective finish ALPOLIC[®] has arrived

ALPOLIC[®] RF has the reflective finish needed to expand your interiors

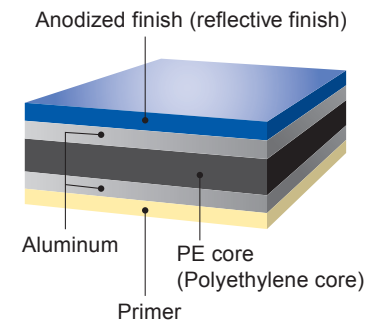
Reference image of applications



Features of ALPOLIC®RF

1. Shatter-proof and safety	Unlike glass, aluminum composite material (ACM) will not shatter or break.
2. Easy installation	It can be easily installed on a rigid substrate using a soft set adhesive and or double sided tape. The quality of the reflection is dependent on the flatness of the substrate.
3. Simple processing	It is easily fabricated and formed. Cutting and drilling can be done on site.
4. Bendable	Roll benders are used to curve the material. The smallest bendable radius is 200mm. (*3mm thick ALPOLIC®/fr RF cannot be curved.)

Material composition



Product dimension & finish

Thickness	Finish	Core material	Standard size
2 mm	Anodized finish	PE core	4' x 8' 1,220 mm x 2,440 mm

Material properties

Specific gravity	Unit weight	Thermal conductivity*	Coefficient of linear expansion	Flexural elasticity*	Tensile strength*
1.45	0.594 lbs/ft ² 2.9 kg/m ²	0.083 Btu/hr-ft-F 0.47 W/m-K	Approx. 13.4 × 10 ⁻⁶ /F (-4 to +140°F) Approx. 25 × 10 ⁻⁶ /K (-20 to +60°C)	6.5 × 10 ⁶ lbf/in ² 45,000 N/mm ²	5076 lbf/in ² 35 N/mm ²

* Calculated value.

The material properties or data in this document are portrayed as general information only and are not product specifications. Due to product changes, improvements and other factors, Mitsubishi Chemical Composites America, Inc. reserves the right to change or withdraw information contained herein without prior notice.

General notes or precautions prior to design and installation

- **Avoid using ALPOLIC®RF outdoors or indoors under a moist environment.**
- For best color consistency, maintain the same directionality throughout design, estimation, fabrication and construction. We recommend ordering finishes for your entire job at one time, from one lot of material.
- Contact between different metals will cause an electrochemical reaction under moist conditions. As aluminum has a lower corrosion potential than copper and iron, galvanic corrosion will accelerate the corrosion of aluminum alloy with these metals. Use stainless steel and aluminum for screws and rivets for assembling.
- The protective film on the surface is degraded by direct sunlight and/or moisture and it may cause a paste residue and create other problems on the finish. Store ALPOLIC®RF sheets in a dry room. The protective film should be removed immediately after installation is completed.
- When adhesive tapes or permanent marker is applied on the protective film, it may transfer and imprint on the surface.
- Installation of ALPOLIC®RF should be bonded to substrate boards with double sided adhesive tapes and an elastic type adhesive. Surface distortion may take place on the reflective finish due to hardening and shrinking of the adhesive if a hard set adhesive is used. Avoid applying the adhesive unevenly. **When adhering ALPOLIC®RF to a substrate, the flatness of that substrate and the method used to adhere the panel to the substrate will determine the quality of the reflective finish.**
- The thermal deformation temperature of ALPOLIC®RF is approx. 110°C or 230°F. It can withstand 100°C or 212°F for a short period if it is not under load. For long duration exposure to high temperatures 70°C or 158°F is recommended as the maximum.
- Confirm reflection in the reflective finish by a large panel to check distortion or brightness of the finish.
- Keep away from acid and/or alkaline agents with direct contact. Corrosion will occur as it would with a conventional solid aluminum sheet.
- Aluminum composite material is hard to break but a physical impact may cause an edge deformation. Also inclusion of hard particles between panels may cause visible dent damages. Extra care is essential in handling the product during transport, storage, fabrication, and installation.
- A cut edge is sharp and dangerous therefore handling must be done carefully with protective gloves.
- Compared to acrylic sheets the ALPOLIC®RF product has higher conductivity and therefore is less prone to dust sticking on the surface. For cleaning, use a soft cloth. Remove stains by using a neutral detergent, rinse by water, and rub with a dry cloth. Do not use an abrasive cleaner or steel wool. Do not use acid or alkaline detergents and solvents as they may cause corrosion of aluminum surface, removing the anodic layer and decreasing the gloss.

MITSUBISHI CHEMICAL COMPOSITES AMERICA, INC.

401 Volvo Parkway, Chesapeake, VA 23320
 Telephone 1.800.422.7270 | Fax 757.436.1896
 www.alpolic-americas.com | Email: info@alpolic.com

A Group Company of
MITSUBISHI CHEMICAL