

Metal

Standard base material is 22 gauge Galvalume® or Zinalume steel. These finishes involve coating the base metal in a hot dip process utilizing an alloy of 55% aluminum, 43.5% zinc, and 1.5% silicon as a protective coating. Panels are also available .032, .040 and .050 aluminum with a Kynar 500® or anodized finish.

Metposite panels are formed from Zinalume® or Galvalume® steel. Both have a metallic coating applied by a continuous coating process whereby properly cleaned low-carbon, cold-rolled sheet steel is dipped into a molten aluminum-zinc bath. The alloy bath temperature is around 600C, and the coating is solidified very rapidly to obtain a fine-grain microstructure with enhanced corrosion resistance, compared to the pure zinc coating (galvanized coating) or pure aluminum.

The result is a highly corrosion-resistant sheet steel that delivers the best protective features characteristic of aluminum and zinc: the barrier protection and long life of aluminum plus the sacrificial or galvanic protection of zinc at cut or sheared edges

Zinc has a self-healing mechanism in it. The zinc coating sacrifices itself slowly by galvanic action to protect the base steel. This sacrificial action continues as long as any zinc remains in the immediate area. In simple terms the edges will not rust. The silicon is introduced primarily to assist in the formation of a thin layer of inter-metallic compound between the coating and base metal, providing coatings with good adhesion.

In addition to all the protective quality, it has excellent forming capabilities. **Therefore, no damage or compromise of the metal's strength or corrosion protection occurs during the forming of the panels.**

Coating

The Kynar 500® (70% PVDF Fluorocarboncoating) paint finish provides a superior low gloss finish with a 20 year warranty.

Kynar 500® is a Fluoropolymer Coating system. The secret of fluoropolymer's remarkable properties lies in its molecular structure; the carbon/fluorine bond (one of the strongest known to man) is the key to the coating's unsurpassed thermal, chemical and ultra violet resistance. The final coating is a factory-applied, oven baked finish based on Kynar 500® resin (Polyvinylidene fluoride). This finish is a dispersion coating based on Kynar 500® resin as formulated by Kynar 500® licensees. This finish is in strict accordance with the formulator's specification and applied by an applicator approved by the formulator. This finish based on Kynar 500® shall meet the performance criteria of AAMA 2605.2 specification, and certified by the formulator as containing KYNAR 500 resin.

Kynar 500 resin-based coatings out perform polyester powder, urethane, silicone polyester and acrylic coatings in every category: better color retention; better gloss retention; better resistance to chalking. Kynar 500® resin-based finishes meet or exceed the physical test performance criteria of the Architectural Spray Coaters Association (ASCA 96) and the American Architectural Manufacturers Association (AAMA 2605.2) for high-performance organic coatings on architectural extrusions and panels.

Bonding

The stiffener is fully adhered to metal using 3M high quality bonding specifically designed to be product compatible with our specific materials.