

POLYARMOR®

THERMOPLASTIC COATINGS



POLYARMOR® is a specialized, multipurpose line of thermoplastic powder coatings made from functionalized polyethylene copolymer. These powders are formulated to provide maximum mechanical properties, superb impact resistance, and excellent UV protection. POLYARMOR powders can be applied by either electrostatic spray or fluidized bed and are available in a wide range of colors and textures to meet a broad range of applications. POLYARMOR is environmentally friendly and emits no harmful VOCs.



OVERVIEW

Functional Polyethylene Thermoplastic Powder Coatings.

Our functional polyethylene thermoplastic powder coatings provide rigid, flexible, and long-lasting protection for a wide range of metal surfaces. Designed to resist corrosion, moisture, and impact, these coatings are ideal for infrastructure, industrial equipment, and water-related applications. With excellent barrier properties and easy application, they offer reliable performance in demanding environments.

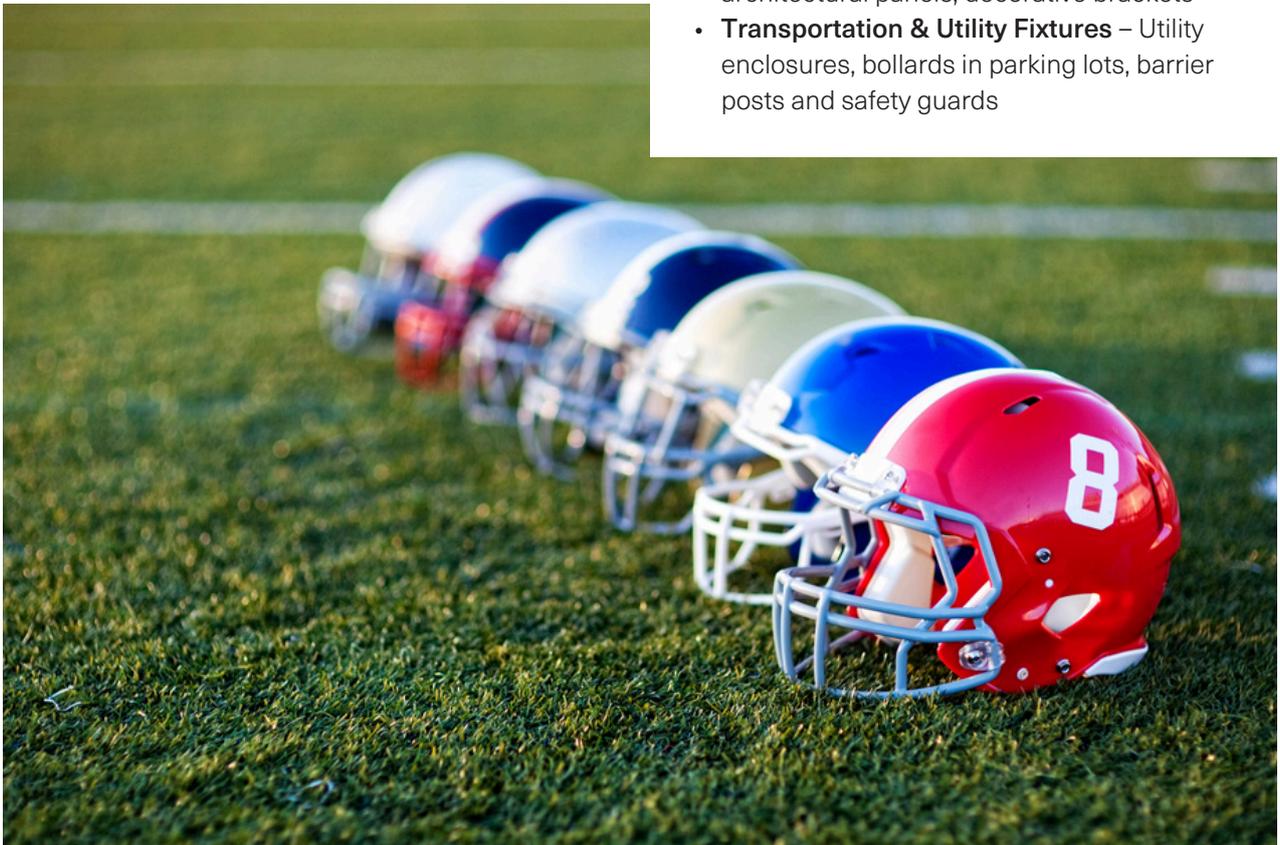
MAIN FEATURES

- **Exceptional Corrosion and Chemical Resistance** – Protects metal surfaces from rust, acids, and harsh chemicals.
- **Excellent UV Resistance** – Maintains color and performance even in direct sunlight and outdoor conditions.
- **Excellent Electrical Insulation and Dielectric Strength** – Provides reliable electrical barrier properties for insulating components.
- **Repairable** – Can be easily touched up or recoated to extend service life.
- **Wide Range of Colors, Metallics, and Textures** – Offers design flexibility with customizable finishes.

TYPICAL APPLICATIONS

Typical applications of Polyarmor include decorative fencing, structural steel, marine hardware, and wire goods. These coatings provide a seamless, long-lasting barrier against corrosion, moisture, and impact, making them ideal for industrial, outdoor, and utility use.

- **Urban Infrastructure & Public Spaces** – Decorative light posts, ornamental bollards, park benches, trash receptacles, street signage supports
- **Recreation & Sports Equipment** – Playground equipment (swings, climbing frames, handrails), bicycle racks, football and hockey masks, outdoor gym structures
- **Architectural & Decorative Metalwork** – Fencing and gates, steel posts and railings, architectural panels, decorative brackets
- **Transportation & Utility Fixtures** – Utility enclosures, bollards in parking lots, barrier posts and safety guards



TECHNICAL PROPERTIES

Essential technical details are outlined below. Full Technical Data Sheet (TDS) available upon request.

| GRADE | | Fluidized bed, electrostatic spray |
|-----------------------------------|---------------------|---|
| TENSILE STRENGTH | ASTM D638 | 3496 psi (24 MPa) |
| ELONGATION | ASTM D638 | 414 % |
| VICAT SOFTENING POINT | ASTM D1525 | 162 °F (72 °C) |
| IMPACT, DIRECT/RESERVE (INCH LBS) | ASTM D2794 | 160/160 |
| TABER ABRASION | ASTM D4060 | 28 mg loss, CS10 wheel & 61 mg loss, CS17 wheel |
| ADHESION | ASTM D4541 | >2000 psi (13.78 MPa) |
| CATHODIC DISBONDMENT | ASTM G95-07 | 5 mm average radial dispondment |
| FLEXIBILITY | ASTM D522 | 1/8 in (3.2 mm), no cracks (>32%) (Conical Mandrel) |
| SALT SPRAY | ASTM B117 | 2000 hrs, no significant under cut or creep |
| Q-PANEL ULTRAVIOLET (QUV) | ASTM G53 | 2000 hrs, no significant change in color or gloss. |
| HIGH IRRADIANCE XENON-ARC | JIS K 5600-7-7:2008 | >1000 hrs, no significant change in color or gloss. |
| HUMIDITY RESITANCE | ASTM D2247 | No blistering or loss of gloss after 1000 hrs. |
| VOLATILE ORGANIC COMPOUNDS (VOCS) | | ZERO |



FORMULATING THE RIGHT MIX.

Since 1976, the Protech Group has been developing and manufacturing coatings, paints, and specialty materials. Through quality and innovation, we formulate the right mix to protect and enhance what matters most to our customers. Protech Group products are manufactured in more than 20 sites worldwide. We serve our customers in countless markets and industries, including construction, infrastructure, transportation, consumer goods, and healthcare.



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