

Z-SERIES™

THERMOSET POWDER COATINGS

Z-Series™ represents Protech's line of super-durable powder coatings, engineered to meet AAMA 2604 and Qualicoat Class 2 and 3 standards. Designed for long-lasting exterior and architectural performance, these coatings offer exceptional weather resistance and are available in a wide range of colors, gloss levels, and textures. Environmentally responsible and VOC-free, Z-Series™ coatings provide superior durability and flexibility, delivering significantly enhanced outdoor performance compared to standard TGIC-free polyesters.



OVERVIEW

Super Durable Polyester Powder Coatings.

The superior performance of Z-Series™ powders is demonstrated by excellent color and gloss retention after five years of Florida exposure testing. Z-Series™ coatings can also be formulated with antimicrobial properties, making them ideal for high-touch surfaces in hygiene-sensitive environments such as hospitals, schools, and food preparation areas. These coatings not only resist physical wear but also help maintain cleanliness and safety.

For optimal results, the coating must be applied and cured by a certified Applicator in accordance with Protech's Technical Data Sheets and application guidelines. When properly applied, the cured film will meet or exceed AAMA 2604 standards for color, gloss, and chalk resistance—and will maintain film integrity for up to 25 years after installation of the coated aluminum products, under a limited warranty.

MAIN FEATURES

- **AAMA 2604 Compliant** – Meets five-year outdoor Florida exposure standards.
- **Built for Outdoors** – Ideal for façades, furniture, and harsh environments.
- **Versatile Finishes** – Available in a range of colors, gloss, and textures.
- **Weather-Resistant** – Excellent adhesion and moisture protection.
- **Durable Surface** – Resists abrasion, wear, and impact.
- **Superior UV & Corrosion Resistance** – Long-lasting outdoor protection.
- **Eco-Friendly** – Low-VOC, solvent-free formulation.
- **Flexible & Tough** – Chip-resistant with strong mechanical integrity.
- **QUALICOAT Certified** – Class 2 & 3 ratings for durability and color stability.

TYPICAL APPLICATIONS

- **Architectural components:** Façades, curtain walls, window and door frames
- **Outdoor furniture:** Benches, tables, chairs, and garden structures
- **Public infrastructure:** Lighting poles, fences, handrails, signage
- **Transportation:** Bike frames, automotive trim, railings
- **Recreational equipment:** Playgrounds, sports gear, park fixtures
- **Industrial uses:** HVAC units, agricultural machinery, construction equipment
- **Retail and commercial:** Display fixtures, shelving, signage systems



OUR SOLUTIONS

We offer advanced, super-durable polyester thermoset coatings for a diverse range of applications. If your specific need isn't listed, feel free to contact us—we're here to help.

TECHNICAL PROPERTIES

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

PRE-TREATMENT	For steel, iron and zinc: phosphating ; For aluminum - chromicizing
APPLICATION CONDITIONS	Electrostatic powder spray, 40 to 120 kv
FILM THICKNESS	For normal usage, 1.5 mils to 3.0 mils (depending on color and finish)
SPECIFIC GRAVITY	1.2 – 1.9 (depending on color)
COVERAGE	160 – 100 (depending on color) sq.ft. / lb. / 1 mil at 100% efficiency
BAKING SCHEDULE	Low Bake: 8 – 10 minutes at 320°F (160°C) Regular Bake: 5 – 7 minutes at 400°F (204°C)

AAMA 2604 REQUIREMENTS AND RESULTS

Color Retention*	$\Delta E < 5$
Gloss Retention*	$> 50\%$
Adhesion	Pass
Pencil Hardness	F No Film Rupture
Impact Resistance 16 mm ball	Pass No Removal
Falling Sand Abrasion 40 liters	Pass
Sealant Compatibility	Pass No Film Damage
Modified Salt Spray Resistance 2 000 hours	Pass < 2mm creepage
Humidity Resistance 4 000 hours	Pass
Muriatic Acid Resistance	No Blisters No Change in Appearance
Mortar Resistance	Pass
Boiling Water Resistance	Pass
Detergent Resistance 72 hours at 100°F (37°C)	No Blisters No Change in Appearance
Nitric Acid Resistance Fumes 30 minutes	Maximum Change 5 ΔE

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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