Coating Benefits

- 3.5 – 6 (Mohs scale)
- 149 – 560 (Knopf scale)
- 100 (Sward)

Abrasion and Wear Resistance
Test reference: ASTM C448 Abrasion Resistance of Porcelain Enamels

Impact Resistance
Compressive strength in the range of 20,000 psi

Thickness
Porcelain enamel can be applied in a wide range of thickness on steel, aluminum, cast iron, or heavy gauge steel or plate.

Thermal Expansion
Test reference: ASTM C359 Linear Thermal Expansion of Porcelain Enamel and Glass Frits and Ceramic Whiteware Materials by the Interferometric Method

Added Capabilities
As an added value to our coating services, we have several metal fabrication capabilities:

- Square shear shapes
- Circle shear
- Spot weld
- Punch press
- Brake press
- Strippit press

Porcelain Enamel provides a surface that is:

- Nonporous to resist bacteria growth and cleans easily
- Abrasion Resistant
- Chemical Resistant
- Corrosion Resistant
- Graffiti-proof
- Flame-proof
- Totally Inorganic and Environmentally Friendly
- Weather Resistant
Porcelain Enamel Overview

Porcelain enamel is the process of applying shattered glass particulates known as “frit” to metal using either a wet or dry method. The parts are usually fired at very high temperatures generally ranging from 1100 to 1600 degrees Fahrenheit. While in the furnace, the frit melts bonding with the metal to create a bright rich color that will endure.

Quality Standards

To maintain quality and process control, we have invested in an analytic laboratory and a long term durability test facility. This investment is a commitment to ensure consistent production of finishes and components with the end goal of delivering the absolute best product to our customers.

Registrations Quality:
- Certified to ISO 9001:2008
- Certified to TS 16949:2009
- Certified to ISO 14001:2004

Porcelain Enamel

Porcelain enamel is about bright, rich colors that endure. For this reason many brands use porcelain enamel coating to make a statement about their product. Our range of services make this effortless for our customers:
- Custom sizes and 1300 colors in stock and/or custom color match.
- Custom color, reflectance, gloss and density matches to customer requirements.
- In-house computer design capabilities.
- R&D for new coating applications and new products.
- Quality control of color and other properties of all production coatings.

Porcelain Enamel Environmental Benefits

At American Trim, we are committed to conducting all operations in an environmentally responsible manner.
- Free of VOCs.
- The production process uses no arsenic or antimony.
- The porcelain enamel coating contains less than 0.1% of heavy metals such as cadmium, mercury, hexavalent chromium, and lead.
- The porcelain enamel coating does not affect the recyclability of steel.

Application

Support most metal substrates and is ideal for these applications:
- Appliance
- Architectural
- Barbeque grills
- Fireplace Systems
- Industrial Signage
- Decorative Signage
- Plumbing Fixtures
- Dry Erase Boards

Advancing technologies in metal decorating and forming - Forming the Future

American Trim specializes in the forming, decorating, and coating of metal and composite substrates and is a Tier 1 and Tier 2 supplier to the appliance, heavy-duty truck and automotive markets. These core competencies supported and enhanced by our Design, Research and Development activities ensure the most advanced and cost effective solutions for our customers.

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