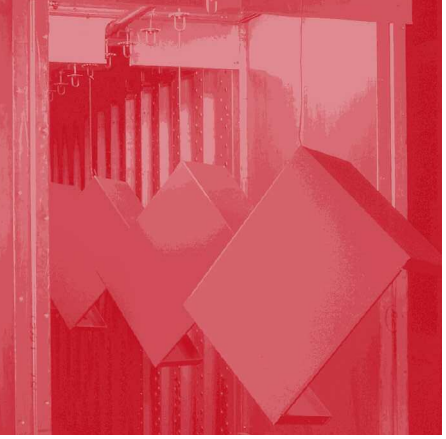

Electrostatic Powder Spray Coating Service

Applied Plastics Experience and Expertise

Founded in 1954, Applied Plastics is one of the original licensed industrial applicators of DuPont Teflon® finishes in the country and we were one of the pioneers in the development of electrostatically applied powder coatings. Over the years, we have perfected the science and art of producing PTFE Natural® Fluoropolymer coated forming mandrels and fine wire in virtually unlimited lengths. We welcome the opportunity to customize a product for your application.

Call 781-762-1881 for information

Teflon® is a registered trademark of DuPont used under license by Applied Plastics Co., Inc.

Applied Plastics electrostatically spray coats items ranging from needles to tool handles, machine housings to chemical valves, and large castings weighing up to 4,000 lbs. After spraying, they are cured in an oven at temperatures from 200°F to 800°F, for varying durations, depending upon the item and coating. We can effectively coat individual pieces, short runs, or high-quantity production runs.

Key Features

- Selectable finish
- Uniform appearance
- Abrasion resistant
- Chemical resistant
- Corrosion resistant
- Mechanically strong
- Electrical insulation
- Anti-stick coatings are available
- Thin and thick films are available

The Electrostatic Process

At Applied Plastics, our skilled technicians understand the art and science of selecting, custom formulating, and applying functional finishes. We apply coatings to solve problems or achieve a specific high gloss, matte, textured, or wrinkled finish. The electrostatic powder spraying process is especially effective for applications where an item must have a protective coating with an outstanding appearance.

Electrostatic powder spraying involves the deposition of powders to either a cold or preheated substrate using a spray gun or an electrostatic fluidized bed. As the air-driven powder passes through the gun head, it receives a positive electrical charge. The positively charged powder is then attracted to the negatively charged or grounded item which is being coated. This electrical attraction holds the powder in place during transport to the oven and through the complete bake cycle.

Durable, Attractive Finish

Once baked, or cured, the powder coatings transform into a uniform coating that resists abrasion, chemical attack, corrosion, and mechanical damage. In addition, the cured coating is flexible, allowing for normal expansion and contraction of a metal substrate. As a result, tubing and sheet metal may be formed after coating without the protective coating being ruptured. Electrostatically sprayed "functional" powder coatings are available in nylon, polyester, epoxy, DuPont Teflon®, and other polymers, depending upon the nature of the material being coated and the desired surface properties. Many powders are FDA and USDA approved.

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Typical Coatings and Their Properties*

Epoxy Some of the very first thermoset powder coatings were based on epoxy resins. This group of materials offers the best chemical, corrosion and heat resistance and will not remelt when heat is applied.

Polyester This powder demonstrates an excellent mixture of impact, chemical, flexibility and UV resistance and isoften considered the most universal thermoset powder chemistry.

Nylon® One of the toughest plastic coatings available, it produces excellent impact and abrasion resistance. Other properties include corrosion and chemical resistance, low co-efficient of friction the the prevention of the formation of fungus.

Teflon® PTFE This nonstick coating has the highest operating temperature of any fluoropolymer (290°C, 550°F continuous), an extremely low coefficient of friction (0.05 to 0.20), and good chemical resistance. This finish is hydrophobic and oleophobic, permitting faster and more complete clean-up.

Teflon® FEP This nonstick coating melts and flows during baking to provide nonporous films. In addition to a low coefficient of friction, it provides excellent chemical resistance.

Teflon® PFA Like FEP, PFA coatings melt and flow during baking to provide nonporous films. It offers the additional benefits of higher continuous temperatures (260°C, 500°F), heavier average film thickness and greater toughness.

Tefzel® ETFE A copolymer of TFE and Ethylene that melts and flows during baking to create a nonporous film, it provides excellent chemical resistance, exceptional abrasion resistance, the highest coefficient of friction, and 3,000 v/mil dielectric strength. Standard film builds can range from 1.0 to 50+ mils, depending on product and application method.

Teflon® S Developed for applications requiring heavy-duty service or lubrication under high pressure or velocity, this coating is formulated with special blends of fluoropolymers and other high-performance resins to improve toughness and abrasion resistance.

Halar® ECTFE Offers superior chemical resistance, good electrical and abrasion resistance and permits heavier film builds compared to most fluorocarbon coatings.

Kynar® PVDF Similar to ECTFE coating, PVDF exhibits a high level of mechanical strength and toughness with excellent chemical resistance over a wide temperature range.

Emralon® This nonstick coating has excellent heat resistance and great cryogenic stability over a wide temperature range, is normally impervious to most chemicals, and provides high dielectric strength.

Xylan® This coating provides lubrication and controlled friction, wear resistance, heat resistance, nonstick and release properties and, at the same time, can also protect from corrosion. Formulations are available to adhere to a wide range of substrates.

SilverStone® This nonstick coating from DuPont, was specifically designed for cookware, but has also been used on rollers and for many other industrial applications.

**These coatings are an example of typical coatings offered when this brochure was printed. At Applied Plastics, we're at the forefront of the latest developments in coatings technology and have access to the newest formulations. This information is merely a guideline and not intended to provide complete material specifications. If you need a product that you don't see in this list, please do not hesitate to contact us.*

We Solve Coating Problems

At Applied Plastics, we have access to hundreds of different coatings and can custom formulate your coating solution. As one of a select group of licensed DuPont Teflon® industrial applicators, with over 50 years of time-tested knowledge and experience, we are extremely well qualified to provide you with a full range of innovative coating solutions.

We can coat parts to meet the most stringent aerospace, commercial, FDA, medical, and military specifications.

Your Finish Is Where We Start

Call **781-762-1881** today, we welcome the opportunity to serve you.