



## COATING SOLUTIONS FOR HARSH AND AGGRESSIVE ENVIRONMENTS

# Formability characteristics of thick-film systems

### Why do we use thick-film systems?

Thick-film fluoropolymer systems are used where superior corrosion protection is required while maintaining excellent color and gloss retention is the heart and soul of these products. They require very little maintenance and will keep your building looking great for years to come.

### What is Flurothane® II?

The Flurothane II formulation combines two of the most effective coating technologies known to our industry: urethane and the fluoropolymer chemistry of Kynar 500® or Hylar 5000® resin. Flurothane II coatings can be applied to properly pretreated HDG steel, aluminum-zinc alloys and aluminium. It is available in a wide variety of standard and custom color hues as well as Energy Star® and LEED® compliant formulations.

### What is Flurothane® IV?

A recipient of the prestigious R&D Award for one of the most outstanding technical achievements in the world in 1989, Flurothane® IV combines two of the most effective technologies known to the coil coating industry: urethane and the fluoropolymer chemistry of Kynar 500® or Hylar 5000® resin.

The Flurothane® IV film system is thicker than Flurothane® II and can be applied to properly pretreated HDG steel, aluminum-zinc alloys and aluminium. It is available in a wide variety of standard and custom color hues as well as Energy Star® and LEED® compliant formulations. Flurothane® IV is a two pass system on a coil line.

### Why do we recommend Flurothane® II?

Flurothane® II coatings are formulated to protect and enhance your building project in tough environments. They have proven effective against ultraviolet rays, corrosion, humidity, acid rain and a wide range of chemical and other pollutants. Flurothane II resists chalking, fading, chipping, cracking and dirt. It has excellent gloss retention.

### Why do we recommend Flurothane® IV?

Flurothane® IV coatings are formulated to protect and enhance your building project in extremely harsh environments such as those found in seacoast and industrial locales.

Projects located in these hostile environments need the added protection against salt spray and chemical corrosion that Flurothane® IV delivers. This system provides excellent flexibility, maximum abrasion and chemical resistance, and barrier corrosion protection. Flurothane® IV coatings have proven effective against ultraviolet rays, corrosion, humidity, acid rain and a wide range of chemical and other pollutants. Flurothane® IV resists chalking, fading, chipping, cracking and dirt. It has excellent gloss retention.

Under special circumstances Flurothane® IV is applied to both sides when protection is required for both the inside and outside of a building.

## How do we handle it?

The internal cohesive forces that come into play when post forming thick-film systems, including composites, can result in some film cracking. This cracking can be minimized through the control of temperature in the forming operation.

### Flurothane® II

#### Hot Dipped Galvanized Steel

- **Pretreatments:** Zinc Phosphate/1402W or P62
- **Topside:** 803X419 Flurothane (thick-film primer)  
Appropriate color Fluropon topcoat
- **Backside:** PMY0302  
Appropriate color Valcoat backer

#### Galvalume

- **Pretreatments:** 1310 or 1402W
- **Topside:** 803X419 Flurothane G (thick-film primer)  
Appropriate color Fluropon topcoat
- **Backside:** PMY0302  
Appropriate color Valcoat backer

Factory roll forming should be conducted at a metal temperature of at least 55°F. Flexibility will be 0-1T NTO.  
Metal fracture can reduce the flexibility.

### Flurothane® IV

#### Hot Dipped Galvanized Steel

- **Pretreatments:** Zinc Phosphate/1402W or P62
- **Topside:** PMY0302 single coat  
803X419 Flurothane (thick-film primer) 2 coats  
Appropriate color Fluropon topcoat
- **Backside:** PMY0302  
Appropriate color Valcoat backer

#### Galvalume

- **Pretreatments:** 1310 or 1402W
- **Topside:** PMY0302 single coat  
803X419 Flurothane (thick-film primer) 2 coats  
Appropriate color Fluropon topcoat
- **Backside:** PMY0302  
Appropriate color Valcoat backer