

## **CARE & MAINTENANCE GUIDE FOR FLUOROPOLYMER COATINGS**

The molecules on the surface of a fluoropolymer coating system is so tightly bound together that they don't want to react with anything. Their slick surface helps make them resistant to many elements found in the environment such as air pollution, acid rain and general airborne dirt.

Although factory-applied fluoropolymer finishes are extremely durable, a periodic cleaning to remove build-ups of resins and other residue is a good idea to extend coating life. A variety of methods for removal of surface deposits are available. Simple washing with plain water using hoses or pressure spray equipment is usually adequate. When heavy deposits of dirt or other contaminants dull surfaces, stronger methods may be needed.

Two precautions: 1) do not use wire brushes, abrasives or similar cleaning tools which will mechanically abrade the coatings surface, and 2) certain cleaning agents listed below should be tested in an inconspicuous area before use on a large scale.

### **GROUP A: HOT OR COLD DETERGENT SOLUTIONS**

A 5% solution in water of commonly used commercial and industrial detergents will not have any deleterious effect on a fluoropolymer surface. These solutions should be followed by an adequate rinse of water. Use a cloth or sponge for application.

### **GROUP B: SOLVENTS**

**Most organic solvents are flammable and/or toxic, and must be handled accordingly.** Read the manufacturer's Material Safety Data Sheets (MSDS). Keep away from open flames, sparks and electrical motors. Use adequate ventilation, protective clothing and goggles.

Solvent that may be used to remove non-water soluble deposits such as tar, grease, oil, paint and graffiti from the fluoropolymer surfaces include:

#### Alcohols

- Denatured alcohol (ethanol)
- Isopropyl (rubbing alcohol)
- Methanol (wood alcohol)

Note: methanol is toxic

The above alcohols have no permanent effect on fluoropolymer surfaces.

### **GROUP C: PETROLEUM SOLVENTS AND TURPENTINE**

- VM&P naphtha
- Mineral spirits
- Kerosene
- Turpentine (wood or gum spirits)

The above solvents have no permanent effect on fluoropolymer surfaces.

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### **GROUP D: AROMATIC AND CHLORINATED**

- Xylol (Xylene) Toluol (Toluene)
- Perchlorethylene (Perclene)
- Trichloroethylene (Triclene)

Note: Perchlorethylene and Trichloroethylene are toxic.

The above solvents should be used with caution on a fluoropolymer surface. Limit contact with solvent to five minutes maximum and test before using.

### **GROUP E: KETONES, ESTERS, LACQUER THINNER AND PAINT REMOVER**

- Methyl isobutyl ketone (MIBK)
- Ethyl acetate (nail polish remover)
- Butyl acetate
- Lacquer thinner
- Paint remover (non-flammable)

The above solvents should be used cautiously on a fluoropolymer surface. Limit contact to fluoropolymer surface and test before using. Note: There are many formulations of paint remover on the market. It is possible that some will remove the fluoropolymer surface. Proceed very cautiously in use of paint remover. Metal supplier and coating manufacturer are not responsible for damage from unrestricted use.

### **GRAFFITI**

Graffiti presents a special problem because of the many possible agents used, generally aerosol paint. It is best to try soap and water first. If needed, try the less active solvents from Groups B, C and D. Next, try the stronger solvents in Group E. If none of these are satisfactory, it may be necessary to resort to touchup, repaint or replacement.

### **CHEMICAL SOLUTIONS**

Mildew: In areas subject to high humidity levels, dirt and spore deposits can permit mildew growth to occur. The following solution is recommended to remove mildew when necessary:

- 1/3 cup dry powdered laundry detergent (such as Tide®)
- 1 quart sodium hypochlorite 5% solution (such as Clorox®)
- 3 quarts water

Rust Stains: Hydrochloric, citric acid or muriatic acid, diluted with ten volumes of water, may assist in removing rust stains from fluoropolymer surfaces. Limit contact to five minutes. Oxalic acid solutions or acetic acid (vinegar) may be used for the same purpose. Flush with water.

**Caution:** Acid solutions are corrosive and toxic. Flush all surfaces with copious amounts of water after use.

### **WARRANTY**

Misuse or abuse of any of the cleaning agents listed above will result in a voiding of the warranty for the surface affected.