

BlackMax Coating

Introduction:

Certain highly corrosive chemical environments can be damaging to aluminum products. Although valve automation equipment is normally not exposed to concentrated chemicals continuously, mild concentrations do exist in plant atmospheres which result in potential problems. In conditions such as these actuators have previously been manufactured from stainless steel, which may be cost prohibitive, or protected by epoxy coatings which only provide nominal external protection. The BlackMax coating is a tough industrial coating that outperforms conventional paints and coatings in demanding environments. The BlackMax coating excels where special protection is required due to problems associated with moisture, acids, caustics, abrasion, or impact. The thermoplastic coating is durable, UV stable, flexible, repairable, and environmentally safe.



Supernova Actuator with BlackMax

Applications:

The BlackMax coating is a blend of materials utilizing DuPont's Nucrel as a base component, and may be applied to any of the Automax Supernova Series and Heavy Duty actuators. The BlackMax coating contains no volatile organic compounds and is solvent free, 100% solids coating with an operating temperature range of -60° F to 140° F. In the event of damage to the coating due to actuator maintenance or otherwise, the coating may be repaired (see next page). The chemical compatibility for the BlackMax coating in commonly encountered environments is shown in the following chart. For specific applications, consult the factory. The BlackMax corrosion resistant coating provides protection against the toughest applications in all process industries. This coating has been successfully used in caustic, chlorine, and wastewater treatment applications. In addition to these specific applications, the coating may be utilized in all process industries including:

1. Chemical and Petro-chemical
2. Power
3. Food and Beverage
4. Pharmaceutical
5. Municipal and Wastewater Treatment
6. Pulp and Paper
7. Marine

Environment	Resistance
Acids	Excellent
Alkalies	Excellent
Humidity / Weather	Excellent
Salts	Excellent
Ammonia	Excellent
Solvents	Fair
Abrasions	Excellent

Repair Instructions:**Step One:**

Cut away any ragged piece and clean the exposed substrate.
Make sure that all contaminants have been removed.

Step Two:

Using a small hand held torch, heat the area slowly. **Do Not Overheat.** Overheating causes the polymer to cross link and can possibly damage internal o-ring seals; consequently, the polymer will not adhere to itself. Look for the surface to have a “wet” look. Sprinkle a sufficient amount of the BlackMax powder over the area and slowly “wet out”. You may have to repeat this action two or three times.

Step Three:

Carefully blend any unmelted powder into the parent coating.

* “Wet out” is accomplished by applying heat to the parent metal, giving the appearance of “wet”. Also, applying the powder and heat to melt the polymer gives a “wet”, paint-like appearance.