

ENDURAGUARD™

EnduraGuard™ is a corrosion resistant coating that offers superior performance to anodizing and painted coatings. EnduraGuard™ can be applied to virtually all aluminum parts and is recommended particularly when corrosion conditions are demanding.

Time lapse photography from 200 hours to over 3200 hours of salt spray with a cross hatch test. In this case, EnduraGuard™ did not fail after 3217 hours. (Test done on 380 die cast. Results may vary.)



After 200 hours



After 445 hours

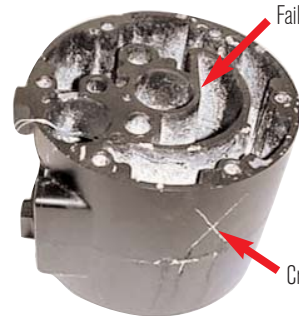


After 1264 hours



After 3217 hours

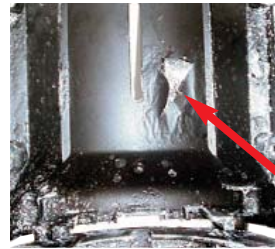
Compare versus E-coat and Powdercoat



Fails here*

E-coat catastrophically fails after 90 hrs of salt spray with a cross hatch test

Cross hatch here



Powdercoat catastrophically fails after 700 hrs of salt spray with a cross hatch test

Cross hatch here
Entire part fails*

*Filiform corrosion occurs when a part fails in wide spread areas beyond the cross hatch.

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Properties and performance tests:

Property	Aluminum Alloys
Appearance	Gloss to semi-gloss
Hardness (Pencil) (ASTM B 3363)	3H - 5H
Thickness (Eddie Current)	0.5 - 2.0 mils
Salt Spray (with cross hatch)	> 1000 hours
Acid Resistance (H ₂ SO ₄ 5% @ 68°F)	> 300 hours
Alkaline Resistance (NaOH 5% @ 68°F)	> 300 hours
Solvent Resistance (MIBK)	> 20 double rubs
QUV UVB Test	500 hours with no visible change

Other Performance Testing:

1 Hour Drop Tests Passed*:

- 2-stroke oil TC-W3
- Automatic Transmission Fluid DEXRON III
- Power Steering Fluid
- Power Trim Fluid
- Unleaded Gasoline
- Sun Tan Lotion
- 10% Muratic Acid
- 5% NaOH

20 Double Rub Test Passed:

MEK

24 Hour Soak Test Passed:

- Automatic Transmission Fluid DEXRON III
- Unleaded Gasoline

*Parts exposed to approximately 3 drops of solution. Part sat at ambient temperature for 60 minutes and was wiped dry with paper towels. Parts were examined for dissolution of EnduraGuard coating, softening or discoloration. Part was deemed to "pass" test if no after effects were visible. Data above reflects testing done at Pioneer Metal Finishing. Actual results may vary with alloy and solutions used for testing. Please consult with Pioneer Metal Finishing to discuss your project prior to sampling and testing.



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