Mueller Corporation
Vacuum Metalizing

CERAKOTE VS TEFLON

Cerakote E-100 Blackout coating was tested for head-to-head corrosion resistance against Teflon® Black 958G, Teflon® Metallic Black 420G, and Xylan® 142X coatings, used in marine applications, to prevent. All coatings were applied to plain steel bolts and zinc plated nuts to increase galvanic corrosion rate.

The analysis was conducted in a Q-Fog salt chamber in accordance with ASTM B117, and evaluated using ASTM D610 for degree of corrosion. All coatings were applied to bolts and hex nuts commonly used in industrial marine environments. Cerakote's standard for corrosion failure is rust grade 5-G, 3% rusted.

TEFLON ANALYSIS AT 48 HOURS

AT 48 HOURS INTO THE ANALYSIS, BOTH GRADES OF TEFLON® HAD SURPASSED THE 3% FAILURE STANDARD ON THE BODY OF THE BOLTS. TEFLON® BOLTS WERE PULLED FROM THE CHAMBER AT 640 HOURS WITH 100% CORROSION.

XYLAN RESULTS AT 530 HOURS

THE XYLAN® BOLTS REACHED THE 3% FAILURE STANDARD AT 530 HOURS IN THE CHAMBER. THESE SAMPLES WERE REMOVED FROM THE CHAMBER AT 1,871 HOURS WITH APPROXIMATELY 60% CORROSION.

CERAKOTE®

3,963 HOUR COMPARISON

BY CONTRAST, AT 3,963 HOURS THE CERAKOTE BLACKOUT BOLTS HAD NOT REACHED THE FAILURE STANDARD.

THE TEST WAS CONCLUDED AT 4,008 HOURS AS CERAKOTE BLACKOUT HAD STILL NOT REACHED THE 3% FAILURE STANDARD. ANALYSIS OF THE DATA DERIVED CERAKOTE BLACKOUT PROVIDED A 99% IMPROVEMENT OVER BOTH TEFLON®, AND AN 87% IMPROVEMENT OVER XYLAN® IN CORROSION RESISTANCE.

FACTORY TRAINED FINISH Cerakote STRONG AND CERTIFIED

TESTING CONDUCTED BY CERAKOTE. INFOGRAPHIC MADE BY MUELLER CORPORATION