

Corrosion Intercept Evaluation

From: Coxon, Bill H [bill.coxon@rolls-royce.com]
Sent: 10 June 2003 10:20
To: 'sales@omega-intercept.com'
Cc: Marks, Jane E; Griffiths, Bill A
Subject: Corrosion Intercept Evaluation

Please pass to Patrik Treves - Managing Director.

Dear Patrik,

The salt spray and humidity testing was completed yesterday and here are the test results as promised.

1) Salt Spray - 1000 hours in continuous salt water spray to BS3900 part F4 at 35 degrees C.

Degreased and abrasive blasted mild steel panel (material to ASTM D609 type1 - A366) enclosed in 0,17mm heat sealed permalon bag.
Degreased aluminium panel (material to ASTM D1730 - 3003H14) enclosed in heat sealed 6 mil static intercept bag <<Intercept MS-F salt.tif>>
<<Intercept MS-B salt.tif>> <<Intercept Al-F salt.tif>> <<Intercept AL-B salt.tif>>
Legend ; MS=mild steel panel, Al=aluminium panel F=front, B=back.

The panels were dry and absent of corrosion sites/products

2) High humidity - 1000 hours to BS3900 part F2 cycling between 42-48 degrees C.

Degreased mild steel panel (material as in 1,) enclosed in heat bag constructed from the submitted dark cross weave material Degreased and abrasive blasted aluminium panel (material as in !) enclosed in a heat sealed 6mil static intercept bag.
<<Intercept MS-F Hum.tif>>
<<Intercept MS-B Hum.tif>> <<Intercept Al-F Hum.tif>> <<Intercept Al-B Hum.tif>>
The panels were wet - the steel panel exhibited one area of corrosion on the front with a few smaller sites on the edges.
- the aluminium panel displayed some staining but no corrosion products.

Under the severe conditions of test the results are good. As you can imagine unprotected mild steel would be extensively corroded and we would expect some corrosion of aluminium under these conditions. Your comments would be appreciated, particularly in respect of the humidity test where the bags were wet on the inside when opened.

In view of the test results to date we will be considering approval of corrosion intercept of a minimum 0,17mm thickness as an alternative short term (inter-op) protection. To enable this I will need to prepare a Rolls-Royce Consumable Supply Specification (CSS) for CI material. I represently have the product information you supplied for Permalon Ply X-100 but will need to include humidity and salt spray testing requirements. Will you please supply Product Data Sheets if available.

Finally, I have to mention that the Rolls-Royce name or details of our evaluation of CI products may not be used for advertising purposes without the permission of the Rolls-Royce License department.

Best Regards,

Bill Coxon
0, E&T. Materials
tel (0)1332 240227 fax (0)1332 241081
email bill.coxon@rolls-royce.com

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