

SALT SPRAY CHAMBER TEST OF A COATED STEEL MOUNTED ON
ALUMINUM PROFILE

Technical Report

Tranberg AS

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Objective:
 Evaluation of a helideck setup performance after 672 h of exposure in the salt spray chamber.


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SUMMARY

Tranberg – one of the manufacturers of helideck offshore installations and equipment – requested DNV GL, Bergen to expose in the salt spray chamber for 672 h (4 weeks) a helideck design and evaluate its performance. The main purpose of the test was to examine the susceptibility to galvanic corrosion of the aluminium helideck under the coated steel coupons. As a reference, uncoated steel coupons were installed on the helideck as well.

The results showed excellent corrosion resistance of the stainless steel coupons and the coating, and no signs of galvanic corrosion on the aluminium helideck under the coated steel coupons. On contrary, the aluminium helideck under the uncoated coupons was corroded significantly.

It was concluded that the coated steel coupons did not induce any galvanic corrosion on the aluminium deck during the exposure in the simulated marine environment (salt spray chamber). As long as both materials are electrically isolated from each other by an undamaged coating or comparable means, no galvanic corrosion is expected in the field.