

Corrosion Resistance Tests for Aluminium Alloys

Amended Rules and Guidance

Rules for the Survey and Construction of Steel Ships Part K

Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use

Reason for Amendment

IACS UR W25 (Rev.4) specifies requirements related to aluminium alloys used for hull constructions and marine structures. The same UR also specifies requirements for O, H111, H112, H116, and H321 tempers used for rolled products.

More specifically, UR W25 specifies which types of rolled alloys are to be tested for exfoliation and intergranular corrosion resistance. Since such corrosion is considered highly unlikely in O tempers (i.e, annealing), corrosion resistance tests are not required. For other temper conditions, however, corrosion tests are required.

The risk of exfoliation and intergranular corrosion occurring in both H111 tempers (i.e., work hardening) and H112 tempers (i.e., as manufactured), however, is considered to be low due to the similarities of their respective manufacturing processes to that of O tempers. Therefore, IACS adopted UR W25 (Rev.5) in June 2014 which removed the H111 and H112 from the list of tempers requiring corrosion testing for exfoliation and intergranular corrosion resistance.

Accordingly, related requirements were amended based upon UR W25 (Rev.5).

Outline of Amendment

Removed the H111 and H112 tempers from the list of tempers requiring corrosion testing for exfoliation and intergranular corrosion resistance.