

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electrode

with trade name
MAGMAWELD ESB 48

Manufacturer
Oerlikon Kaynak Elektrodleri ve Sanayi A.S.
ISTANBUL, İstanbul, Türkiye

is found to comply with
DNV rules for classification – Ships
DNV class programme DNV-CP-0069 – Type approval – Welding consumables

with this approval

Grade	3 YH10
Current	DC(+)
Approved diameter	2.5 mm - 5.0 mm
Positions	All, except vertical downwards
Remarks	

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Hamburg** on **2023-01-23**
This Certificate is valid until **2026-12-31**.
DNV local unit: **Istanbul**

for **DNV**

Approval Engineer: **Ludger Hachmöller**

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Thorsten Lohmann
Head of Section

Any significant change in design or construction may render this Certificate invalid.
LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

