

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electrode

with trade name
Kryo 1-180

Manufacturer
Lincoln Electric Europe B.V.
Nijmegen, Netherlands

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

with this approval

Grade	4 Y46(H5)
Current	AC, DC(±)
Approved diameter	3.2 mm - 5.0 mm
Positions	Flat, horizontal (PA, PB, PC)
Remarks	Electrode: Only valid for lot numbers starting with M1

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

Issued at **Hamburg** on **2021-12-14**

This Certificate is valid until **2026-12-13**.

DNV local station: **Bucharest**

for **DNV**

Approval Engineer: **Ludger Hachmöller**

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.

