

# TYPE APPROVAL CERTIFICATE

Certificate no.:  
**TAW000026B**  
Revision No:  
**2**

## This is to certify:

that the Electrode

with trade name  
**TL-50D**

Manufacturer

**Tien Tai Electrode Co., Ltd.**  
**Tainan, Taiwan Region**

is found to comply with

**DNV rules for classification – Ships**

**DNV offshore standards**

**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

|                          |                                      |
|--------------------------|--------------------------------------|
| <b>Grade</b>             | <b>3 YH10</b>                        |
| <b>Current</b>           | <b>AC/DC(+)</b>                      |
| <b>Approved diameter</b> | <b>3.2 mm - 5.0 mm</b>               |
| <b>Positions</b>         | <b>All, incl. vertical downwards</b> |
| <b>Remarks</b>           | <b>Also for fillet welding</b>       |

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

Issued at **Hamburg** on **2026-08-13**

This Certificate is valid until **2031-06-30**.

DNV local unit: **Kaohsiung**

Approval Engineer: **Christine Löll**

for **DNV**



Digitally Signed By:  
Ludger Hachmöller  
Location: DNV Hamburg,  
Germany

Any significant change in design or construction may render this Certificate invalid.

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