



# TYPE APPROVAL CERTIFICATE

Certificate no.:  
**TAW000036N**  
Revision No:  
**3**

**This is to certify:**

**that the Wire/Flux combination**

with trade name  
**TSW-12KHG / TF-210**

Manufacturer

**Tien Tai Electrode (Kunshan) Co., Ltd.**  
**Kunshan, Jiangsu, China**

is found to comply with

**DNV rules for classification – Ships**  
**DNV class programme DNV-CP-0069 – Type approval – Welding consumables**

with this approval

<b>Grade</b>	<b>V Y40TM(H5)</b>
<b>Current</b>	<b>DC(+)</b>
<b>Approved diameter</b>	<b>2.4 mm - 5.0 mm</b>
<b>Positions</b>	<b>Flat</b>
<b>Remarks</b>	<b>Also for two-wires welding</b> <b>Polarity of the 1st wire: DC(+)</b> <b>Polarity of the 2nd wire: AC</b>

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

Issued at **Hamburg** on **2024-10-22**

This Certificate is valid until **2027-08-17**.

DNV local unit: **Shanghai**

Approval Engineer: **Dietmar Liebich**

for **DNV**



Digitally Signed By:  
Martin Wenning  
Location: DNV Hamburg,  
Germany

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

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