

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Shop Primers**with type designation(s)
TEMABLAST EV 110

Issued to

TIKKURILA OYJ
Vantaa, Finland

is found to comply with

DNV GL class programme DNVGL-CP-0109 – Type approval – Shop primers for corrosion protection of steel plates and sections
DNV GL rules for classification – Ships
DNV GL offshore standards**Application :****The shop primer is approved for application on blast cleaned steel plates and sections.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**This Certificate is valid until **2021-06-28**.Issued at **Høvik** on **2016-06-29**DNV GL local station: **Helsinki**Approval Engineer: **Stefan Marion**for **DNV GL**

Arnstein Gloppen
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

TEMABLAST EV 110; Two-component, iron oxide pigmented epoxy shop primer.

Application/Limitation

The shop primer is approved for application on blast cleaned steel plates and sections.

The approval testing does not include examination of possible effects of welding with this primer on the welder's state of health.

This approval only verifies that the shop primer tested has no detrimental effect on the finished weld, on condition that the film thickness applied is in accordance with the manufacturer's recommendation.

Type Approval documentation

- 1.
- 2.
- 3.
- 4.
- 5.

Tests carried out

Type Testing carried out according to **Type Approval documentation**, ref. "Porosity forming of shop primer during welding", report of 2007-07-06 from Polartest Oy with the result:

- 10.4 % porosity (max. allowed porosity 15%)

Marking of product

Product/package shall be marked with *manufacturer's name and address*; **Tikkurila Oyj, Vantaa, Finland**, *type designation*; **TEMABLAST EV 110** and *date of production/batch number*.

The marking is to be carried out in such a way that it is visible, legible and indelible. The marking of product is to enable traceability to the DNV GL Type Approval Certificate.

Periodical assessment

The scope of the Periodical Assessment is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

Periodical Assessment to be performed after 2.5 years (Certificate Retention) and at renewal after 5 years (Certificate Renewal).

The main elements of the Periodical Assessment are to:

- Ensure that **Type Approval documentation** is available.
- Review design, materials, production process, and performance with respect to possible changes, in order to ensure compliance with **Type Approval documentation** and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and the DNV GL Type Approval Certificate.

END OF CERTIFICATE