

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Shop Primers**with type designation(s)
GALVANY SHOPPRIMER IZ182(S)

Issued to

KCC Corporation, Ulsan Plant
Ulsan, Republic of Korea

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 **2024-06-30**.Issued at **Høvik** on **2019-05-23**DNV GL local station: **Ulsan**for **DNV GL**Approval Engineer: **Stefan Marion**

Rikard Törnqvist
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. If any person suffers loss or damage which is proven to have been caused by any negligent act or omission of the Society, then the Society shall pay compensation to such person for his proven direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question. The maximum compensation shall never exceed USD 2 million. In this provision the "Society" shall mean DNV GL AS as well as all its direct and indirect owners, affiliates, subsidiaries, directors, officers, employees, agents and any other person or entity acting on behalf of DNV GL AS.

Certificate No: **TAK00001N2**
File No: **335.10**
Job Id: **262.1-018527-2**

Product description

GALVANY SHOPPRIMER IZ182(S): A two-component, self curing, zinc filled inorganic coating.

Application/Limitation

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

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

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

Type Approval documentation

Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**, ref. KTR Technical Report No. 2014-TBU-324, Rev. 00, "Testing of Prefabrication Primer" of 2015-02-02, with the following result:

- max. 4.56% porosity (max. allowed porosity 15%)

Marking of product

Product/package shall be marked with *manufacturer's name*; **KCC Corporation, Ulsan, Korea** and *type designation*.

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 and 3.5 years (Certificate Retention) and at renewal after 5 years (Certificate Renewal).

The main elements of the Periodical Assessment are:

- 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