DNV·GL

Certificate No:
TAK00000ZV

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Shop Primers

with type designation(s)
HEMPEL'S SHOPPRIMER E 15280

Issued to
Hempel A/S
Kgs. Lyngby, Denmark

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 applications 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.

Issued at **Høvik** on **2017-10-31**
This Certificate is valid until **2022-10-30**.
DNV GL local station: **Copenhagen**

Approval Engineer: **Gisle Hersvik**

for **DNV GL**

Martin Strande
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.

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Product description

HEMPEL'S SHOPPRIMER E 15280, two-component epoxy primer, pigmented with zincphosphate rust-inhibiting pigments.

Manufactured by

Hempel (Portugal) Lda., Vale de Cantadores, 2954-002, Palmela, Portugal

DNV GL local station: Barcelona

Hempel Paints (Poland) Sp.z.o.o., Ul. Modrzewiowa 2, 64-320 Buk, Poland

DNV GL local station: Gdansk

Responsibility

The Company (stated on the front page of this Certificate) takes the responsibility that both design and production are in compliance with Rules, Standards and/or Regulations listed on page 1 of this certificate.

Application/Limitation

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

The approval does not include any examination of possible effects of welding with this primer on the welders' 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

Tests carried out

Type Testing carried out according to **Type Approval documentation**, ref. DVS SLV Duisburg Test Report No. 2017 655 4006, "Determination of the porosity level according to DIN EN ISO 17652-2: 2003-07 (former DVS 0501)" of 2017-10-06, with results:

- Mean total area of pores: 20,93 mm^2
  (Duetscher Ausshuss für Stahlbau, DASt-Richtlinie 006, is met, i.e. pore area ≤125 mm^2).

Further;
- Gas emission test: The gas concentrations are below the threshold limits.

Marking of product

Product shall be marked with *manufacturer's name, place of manufacture,* 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 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 DNV GL Type Approval Certificate.

END OF CERTIFICATE