DNV·GL

Certificate No:
TAK00001UC

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Shop Primers

with type designation(s)
Muki EPS

Issued to
Jotun A/S
SANDEFJORD, Norway

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.

Issued at **Høvik** on **2019-12-11**
This Certificate is valid until **2024-12-10**.
DNV GL local station: **Sandefjord**

Approval Engineer: **Gisle Hersvik**

for **DNV GL**

Gustav Heiberg
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

Muki EPS; A two component chemically curing epoxy coating.

Manufactured by

Jotun Paints (Europe) Ltd., Stather Road, Flixborough, Scunthorpe, North Lincolnshire, DN15 8RR, England, United Kingdom

DNV GL local station: Manchester

Jotun Coatings (ZJG) Co. Ltd., No. 15 Changjiang Road, Jiangsu Yangtze River International Chemical Industry Park, Zhangjiagang Free Trade Zone, Jiangsu 215634, P.R. China

DNV GL local station: Shanghai

Jotun India Private Limited, Plot D 280, Ranjangaon MIDC, Village Karegaon, Taluka Shirur, Pune 412220, Maharashtra State, India

DNV GL local station: Mumbai

Chokwang Jotun Ltd. - Head Office, 96, Gwahaksandan, 1-ro, Gangseo-gu, Busan, 46742, Korea

DNV GL local station: Gimhae

Jotun Paints (Malaysia) Sdn.Bhd. - Nilai Factory, Lot 9143, PN 38500, Kawasan Perindustrian Nilai, 71800 Nilai, Negeri Sembilan, Malaysia

DNV GL local station: Kuala Lumpur

Jotun Boya San. ve Tic. A.S., Organize Sanayi Bolgesi, Gazi Osman Pasa Mahallesi, Ulusoy Cad, No:6 & No:8, Cerkezkoy 59500 Tekirdag, Turkey

DNV GL local station: Istanbul

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 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.

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

Type Approval documentation

Tests carried out

Type Testing carried out according to **Type Approval documentation**, and according to ISO 17652-2, ref. Test Report No. 2019 655 4006 from DSV SLV Duisburg of 2019-12-02, with result:

- Mean pore area 8,76 mm^2 (max. allowed pore area 125 mm^2).

Trace gas emission testing indicates that the detected gas concentrations are below the threshold values.

The testing is carried out in accordance with:
- ISO 17652-2 "Welding - Test for shop primers in relation to welding and allied processes - Part 2: Welding properties of shop primers".
- ISO 17652-4 "Welding - Test for shop primers in relation to welding and allied processes - Part 4: Emission of fumes and gases".

Marking of product

Product shall be marked with *manufacturer's name*: **Jotun A/S**, *place of manufacture* and *type designation*; **Muki EPS**.

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 assessments (for Certificate Retention and Certificate Renewal) shall be performed according to DNVGL-CP-0338.

This certificate is only valid if required Periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnvgl.com

END OF CERTIFICATE