DNV·GL

Certificate No:
TAK00001U8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Protective Coating Systems - Seawater Ballast Tanks

with type designation(s)
Jotacote Universal N10 QD / Jotacote Universal N10

Issued to
Jotun A/S
SANDEFJORD, Norway

is found to comply with
DNV GL class programme DNVGL-CP-0108 – Type approval – Protective coating systems for seawater ballast tanks and double-side skin spaces
IMO Resolution MSC.215(82) Performance Standard for Protective Coatings (PSPC)
IACS Unified Interpretations SC223. For Application of SOLAS Regulation II-1/3-2 Performance Standard for Protective Coatings (PSPC) for Dedicated Seawater Ballast Tanks in All Types of Ships and Double-side Skin Spaces of Bulk Carriers.

Application :

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

Issued at **Hamburg** on **2019-12-10**
This Certificate is valid until **2024-12-09**.
DNV GL local station: **Sandefjord**

Approval Engineer: **Enno Brück**

for **DNV GL**

Thorsten Lohmann
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

Jotacote Universal N10 QD / Jotacote Universal N10, are a two component polyamine cured pure epoxy coatings.

Manufactured by

Jotun Paints (Europa) Ltd., Stather Road Flixborught, Scunthorpe, North Lincolnshire DN 15 8 RR, United Kingdom.

DNV GL local office: Manchester

Responsibility

The holder of 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

This approval is solely connected to the corrosion prevention properties of the coating material. The approval does not include any evaluation of toxicity, contamination, pollution, or fire technical properties.

Jotacote Universal N10 QD / Jotacote Universal N10, is approved for application on blast cleaned surfaces and on prequalified shop primed surfaces. The following shop primer has been prequalified:

- Muki Z 2001 [Jotun A/S]
- Muki Z 2008 [Jotun A/S]
- Galvany IZ 182(S) [KCC Corporation]
- SD Zinc 1000HA(S) [COSCO Kamsai Paint and Chemicals (Tianjin) co., Ltd.]
- KCI Zinc 1000 [KCI]
- Sigmaweld 199 [Sigma Coatings]
- Sigmaweld 165 [Sigma Coatings]

Surface preparation and coating application according to PSPC or manufacturer's recommendations, whichever is stricter.

The durability of the applied coating system will depend on the steel surface preparation, coating application and the environmental conditions.

The Type Approval Certificate is invalid if the formulation of the epoxy coating **Jotacote Universal N10 QD / Jotacote Universal N10** is changed to a degree deemed significant by DNV GL. If the formulation of the listed pre-qualified shop primer is changed to a degree deemed significant by DNV GL the shop primer cannot be used as part of the Protective Coating System.

Tests carried out

Type Testing carried out in accordance with DNV GL CP-0108. The tests are carried out according to the procedures in IMO Resolution MSC.215(82) Performance Standard for Protective Coatings (PSPC), ref. IACS UI SC223:

- COT, Report No.: LAB18-500-REP, "Jotacote Universal N10 QD + Jotacote Universal N10 over Muki Z 2001", date 2019-03-25.
- DNV GL AS Oil & Gas, Materials Bergen, Report No.: 2018-5273, "Jotacote Universal N10 QD over Muki Z 2008", date 2018-09-25.
- DNV GL AS Oil & Gas, Materials Bergen, Report No.: 2018-5270, "Jotacote Universal N10 QD over Galvany IZ 182(S)", date 2018-09-12.

- DNV GL AS Oil & Gas, Materials Bergen, Report No.: 2018-5271, "Jotacote Universal N10 QD over SD Zinc 1000 HA(S)", date 2018-09-25.
- DNV GL AS Oil & Gas, Materials Bergen, Report No.: 2018-5272, "Jotacote Universal N10 QD over KCI Zinc 1000", date 2018-09-12.
- DNV GL AS Oil & Gas, Materials Bergen, Report No.: 2018-5269, "Jotacote Universal N10 QD over Sigmaweld 199", date 2018-09-12.
- DNV GL AS Oil & Gas, Materials Bergen, Report No.: 2018-5268, "Jotacote Universal N10 QD over Sigmaweld 165", date 2018-09-12.

Marking of product

Product/package shall be marked with *manufacturer's name and address***; Chokwang Jotun Ltd.,** 30th Block Jisa Science Park 1205 Jisa-dong, Gangseo-gu Busan 606-063, Korea, *type designation* **Jotacote Universal N10 QD / Jotacote Universal N10**, 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 and 3.5 years (Certificate Retention) and at renewal after 5 years (Certificate Renewal).

END OF CERTIFICATE