

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Protective Coating Systems - Cargo Oil Tanks**with type designation(s)
SIGMAPRIME 200 and SIGMAPRIME 200 LT

Issued to

PPG Coatings Europe B.V.
Kopraweg 35, Westpoort 7615, 1047 PB Amsterdam, The Netherlands

is found to comply with

IMO Resolution MSC.288(87) Performance Standard for Protective Coatings (PSPC)**DNV GL class programme DNVGL-CP-0139 – Type approval – Protective coating systems for cargo oil tanks****IACS Unified Interpretations SC259. For Application of SOLAS Regulation II-1/3-11****Performance Standard for Protective Coatings for Cargo Oil Tanks of Crude Oil Tankers (PSPC-COT), adopted by Resolution MSC.288(87).****Application :****For use in cargo oil tanks of crude oil tankers. Surface preparation and coating application as per PSPC or manufacturer's recommendations, whichever is stricter.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Hamburg** on **2018-06-12**This Certificate is valid until **2022-06-30**.DNV GL local station: **Rotterdam**for **DNV GL**Approval Engineer: **Enno Brück**

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.



Product description

SIGMAPRIME 200 and **SIGMAPRIME 200 LT**, 2-component epoxy based coatings for corrosion protection of steel surfaces.

Manufactured

PPG Coatings (Kunshan) Co., Ltd., 53 Jin Yang Road, Mail Box no. 128, Kunshan, Jiangsu, China.

DNV local office: Shanghai

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

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.

SIGMAPRIME 200 and **SIGMAPRIME 200 LT** are approved for application on blast cleaned surfaces and on prequalified shop primed surfaces. The following shop primer has been prequalified on both products:

SigmaWeld™ 165 [PPG]

Surface preparation and coating application as per 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 coatings **SIGMAPRIME 200** and **SIGMAPRIME 200 LT** are changed to a degree deemed significant by DNV GL. If the formulation of any of the listed pre-qualified shop primers is changed to a degree deemed significant by DNV GL that shop primer cannot be used as part of the Protective Coating System.

Type Approval documentation

Tests carried out

Type Testing carried out according to **Type Approval documentation**.

The tests reported in the EXOVA Test Reports are carried out according to the procedures in IMO Resolution MSC.288(87)

Performance Standard for Protective Coatings (PSPC), ref. IACS UI SC259;

- EXOVA Test Report No. N956438, Issue No. 1 "Cargo Oil Tank Coating test of 2 x 160 µm SIGMAPRIME 200 Epoxy Paint on SIGMAWELD 165 Shop Primer" of 2012-06-27.
- EXOVA Test Report No. N956445, Issue No. 1 "Cargo Oil Tank Coating test of 2 x 160 µm SIGMAPRIME 200LT Epoxy Paint on SIGMAWELD 165 Shop Primer" of 2012-06-27.

Marking of product

Product/package shall be marked with manufacturer's name; **PPG Coatings (Kunshan) Co., Ltd., Jiangsu, China**, and *type designation*; **SIGMAPRIME 200** and **SIGMAPRIME 200 LT**, and *date of production/batch number*.



Job Id: **262.1-015364-3**
Certificate No: **TAK000018R**

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