



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. K-1966
This Certificate consists of 3 pages

This is to certify that the
Coatings

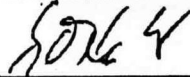
with type designation(s)
CERAM-KOTE 54

Manufactured by
Ceram-Kote Europe GmbH
Rödinghausen, Germany

is found to comply with
Det Norske Veritas' Type Approval Programme 1-602.1, 1999, Protective Coating Systems

Application
Protection of structural steel, including steel in ships ballast tanks, submerged in seawater and in splash zone (NORSOK Systems No. 1 and 7). Surface preparation, application and film thickness: As per the manufacturer's recommendation.

Place and date
Høvik, 2000-12-19
for DET NORSKE VERITAS AS


John Olav Nøkleby
Head of Section



This Certificate is valid until
2004-12-31


Gisle Hersvik
Surveyor

Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for the proved actual loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision, "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



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Product description

CERAM-KOTE 54; Modified epoxy based coating system loaded with sub-micron ceramic particles. 2-pack, spray applied, air drying.

Application/Limitation

Surface preparation and use: Minimum blast cleaning to Sa 2.5, and as per the manufacturer's recommendations.

This approval is solely connected to corrosion protection and does not include evaluation of toxicity, pollution, contamination or fire properties.

Type Approval documentation

1. Email from DNV Essen of 2000-09-12, with enclosures.
2. Letter from Ceram-Kote Europe GmbH of 2000-10-16, with enclosures.
3. Test Reports from Teknologisk Institutt, Oslo, Norway;
 - no. 36021KA03 dated 1999-03-11, and
 - no. 36021KA04 dated 1999-04-08,confirming compliance with NORSOK Standard M-501, Systems No. 1 and 7.
4. Survey Report no. ESN 06182 from DNV Essen dated 2000-11-24.

Tests carried out

Type Testing as per Type Approval documentation.

Marking of product

Product or package shall be marked with *manufacturer's name*: Ceram-Kote Europe GmbH, Germany and *type designation*.

Certificate Retention Survey

The scope of the Retention/Renewal Survey 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.

Survey to be performed after two (2) years (Certificate Retention Survey) and at renewal after four (4) years (Certificate Renewal Survey).



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The main elements of the survey 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 Type Approval Certificate.

END OF CERTIFICATE