

# TYPE EXAMINATION CERTIFICATE

**This is to certify:**

**That the Protective Coating Systems - Offshore Structures**

with type designation(s)  
**Marine & Offshore Film**

Issued to  
**Niggemeyer Pro Imaging GmbH & Co.KG**  
**Bochum, Germany**

is found to comply with  
**NORSOK M-501, Surface preparation and protective coating (Rev. 4, December 1999)**

**Application :**

**For use in Coating System 1 in accordance with the stated Standard.**

Issued at **Høvik** on **2017-02-07**

This Certificate is valid until **2022-02-06**.

DNV GL local station: **Bochum**

Approval Engineer: **Gisle Hersvik**



for **DNV GL**  
Digitally Signed By: Törnqvist,  
Rikard  
Location: DNV GL Høvik, Norway  
Signing Date: 09.02.2017 , on behalf of

**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 Examination Certificate and not to the approval of equipment/systems installed.



## Product description

**Marine & Offshore Film**, vinyl based self adhesive film for corrosion protection.

Adhesive film for use in Coating System 1 in accordance with NORSOK M-501, Surface preparation and protective coating, Rev. 4, December 1999.

Coating System 1:

- Carbon steel with operating temperature <120°C
  - Structural steel
  - Exteriors of equipment, vessels, piping & valves (not insulated)

## Manufactured by

**MACTac Europe**, Boulevard Kennedy, B-7060 Soignies, Belgium

DNV GL local station: Antwerp

## Responsibility

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

## Application/Limitation

For use in marine atmosphere on ships, offshore structures and similar applications.

The examination is solely connected to corrosion protection and does not comprise any evaluation of toxicity, pollution aspects, contamination, or fire technical properties.

## Type Examination documentation

1. Re-issuance of Type Examination Certificate No. K-5841 (previous K-3040).
2. Email from DNV GL Antwerp of 2017-02-06, including; Assessment Report from DNV GL Antwerp of 2017-02-01, Technical Data Sheet (TDS) for "MACal® 9800 HT-2 Offshore Vinyl" and Material Declaration – Asbestos of 2017-01-17.
3. Email from DNV GL Hamburg of 2016-12-05, including Assessment Report from DNV GL Hamburg of 2016-11-29.
4. Emails from DNV Antwerp of 2014-01-28 and 2014-02-04.
5. Type Approval Assessment Report from DNV Antwerp of 2014-01-28.
6. Audit Report from DNV Antwerp of 2013-10-08.
7. Application for Type Approval/Examination of 2013-03-20.
8. DNV Technical Reports from testing at the Bergen, Norway seawater laboratories;
  - BGN-R2700348, Rev. 01, Bentsen & Partners AS "Pre-qualification of the offshore foil "MACal 9800 HT" on a zinc-epoxy primer" [Primer; Carboline 858] of 2000-10-31 and
  - BGN-R2700352, Rev. 01, Bentsen & Partners AS "Pre-qualification of the offshore foil "MACal 9800 HT" on an old coating" [Primer; Carboline 858] of 2000-10-31.

## Tests carried out

Type testing carried out in accordance with **Type Examination documentation**, i.e. in accordance with NORSOK M-501 *Surface preparation and protective coating* (Rev. 4, Dec. 1999), Coating System No. 1. Reference is made to DNV Technical Reports Nos. BGN-R2700348 and BGN-R2700352 of 2000-10-31.

Job Id: **262.1-002986-3**  
Certificate No: **TAK00000RU**

## Marking of product

Product shall be marked with *manufacturer's name*; **Niggemeyer Pro Imaging GmbH & Co.KG, Germany**  
*place of manufacture*: **MACtac Europe, Belgium** 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 Examination Certificate.

## Periodical assessment

The scope of the Periodical Assessment is to verify that the conditions stipulated for the Type Examination 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 Examination documentation** is available.
- Review design, materials, production process, and performance with respect to possible changes, in order to ensure compliance with **Type Examination documentation** and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and DNV GL Type Examination Certificate.

END OF CERTIFICATE