

TYPE EXAMINATION CERTIFICATE

This is to certify:

That the Adhesive Materials for use in Insulation of Gas Carriers

with type designation(s)
LOCTITE UK 8202/LOCTITE UK 5400

Issued to

HENKEL TECHNOLOGIES FRANCE S.A.S
MARNE-LA-VALLEE cedex, France

is found to comply with
Gaztransport & Technigaz Specification Nr. M3005, Insulating Panel Adhesive, Rev. 02,
November 2015

Application :

For use in CS 1, MARK III, MARK III HD, MARK V and NO96-L03 type LNG carriers built under GTT's license.

Issued at **Hamburg** on **2017-05-10**

This Certificate is valid until **2021-12-31**.

DNV GL local station: **Essen**

for **DNV GL**

Approval Engineer: **Joachim Rehbein**

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

Job Id:
Certificate No: **TAK00000MS**

Product description

Two-component solvent free adhesive based on polyurethane.

LOKTITE UK 8202: Resin
LOKTITE UK 5400: Hardener

Manufactured by

Henkel AG & Co. KGaA, Henkel Strasse 67, 40589 Düsseldorf, Germany

Application/Limitation

The material is only approved for use in CS 1, MARK III, MARK III HD, MARK V and NO96-L03 type LNG carriers built under licence from GAZTRANSPORT & TECHNIGAZ SAs (GTT). Deliveries to actual shipbuilding projects shall be in compliance with the GTT document no. M 3005, Insulating Panel Adhesive, Rev. 02, November 2015 and the product shall have a valid approval from GTT.

Type Examination documentation

Tests carried out

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

Marking of product

Product shall be marked with *manufacturer's name; place of manufacture and type designation*.

Periodical assessment

The scope of the Retention/Renewal Survey 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 assessments will be carried out bi-yearly (certificate retention). When possible, these assessments may be harmonised with normal surveys for product certification and / or other surveys and audits carried out.

A Type Approval Certificate may be renewed for a further period of validity, at the customer's request. A renewal survey shall be performed.

END OF CERTIFICATE