

Test report

No. 2011-B-0279

1. Official copy of abstract
(English Version)

Customer: MKT Metall-Kunststoff-Technik GmbH Co. KG
Auf dem Immel 2
67685 Weilerbach

Order dated: 2011-01-19

Order content: Performance of a fire test in the multifunctional test rig for horizontal and vertical components in accordance with DIN EN 1363-1:1999 to determine the failure time and cause of failure in MKT nail anchors N under full fire stress as per the RABT/ZTV-ING tunnel curve over a test period of 140 minutes, fire test based on TR 020

Test object: MKT nail anchor N in threaded bolt N 6 and nail head N-K executions

Sampling: Details on an official sampling of the materials supplied are not available to MPA Dresden GmbH.

Test date: 2011-01-19

Period of validity: indefinite

This test report comprises 2 pages of text and 0 appendices.

This test report is issued in German and English. In case of doubt the German version is valid.

The publishing of test reports, even extracts therefrom, and references to tests for the purposes of advertising requires the written consent of MPA Dresden GmbH in each individual case. The individual pages of this test report have been endorsed with the official stamp of the company MPA Dresden GmbH.



MPA Dresden GmbH
Fuchsmühlenweg 6F
09599 Freiberg
www.mpa-dresden.de

Geschäftsführer: Thomas Hübler
Tel. +49(0)3731-20393-0
Fax +49(0)3731-20393110
E-Mail info@mpa-dresden.de

Amtsgericht Chemnitz HRB 28268
Steuernummer: 220/114/03364
USt-IdNr. DE291271296

Sparkasse Mittelsachsen
Poststraße 1a
09599 Freiberg
IBAN DE68 870520003115024672
BIC WELADED1FGX

1 General

On the 2011-01-19 MKT Metall-Kunststoff-Technik GmbH Co. KG instructed MPA Dresden GmbH to perform a fire test on MKT nail anchors N A4 / HCR in the threaded bolt N 6 and nail head N-K executions in accordance with the RABT/ZTV-ING tunnel fire curve. The failure time and cause of failure was to be determined on selected test objects. The imposed load on the test objects (axial tension) was based on TR 020.

2 Evaluation of test results

Based on the test results the following permissible loads per anchor dowel can be specified for the MKT nail anchor N in stainless steel (A4) or high corrosion resistant steel (HCR) under predominantly static load in reinforced or unreinforced standard concrete with a strength class of at least C12/15 and at most C50/60 in accordance with EN 206-1: 2000-12 or at least B15 and at most B55 in accordance with DIN 1045: 1988-07 during a fire stress as per the ZTV-ING time-temperature curve.

Designation	Maximum load with a fire stress as per the "tunnel fire chamber curve" in accordance with ZTV-ING
MKT nail anchor N	Max. F [kN]
Threaded bolt N 6	0.12
Nail head N-K	0.12

When configuring the fasteners it is to be checked whether the permissible loads in accordance with ETA-11/0240 are determinant.

3 Special notes

The above evaluation is valid solely for MKT nail anchors N A4 / HCR in the threaded bolt N 6 and nail head N-K executions taking into consideration the provisions of the European Technical Approval ETA-11/0240 with embedment depths h_{ef} of at least 30 mm.

The evaluation of the MKT nail anchors N A4 / HCR in the threaded bolt N 6 and nail head N-K executions is valid solely in conjunction with steel reinforced concrete ceilings, the construction form of which accords with the provisions of ZTV-ING, Part 5: Tunnel Building Regulations for "fire protection measures for construction" or which have passed a fire test with fire stressing as per the ZTV-ING time-temperature curve.

Freiberg, 2019-08-05


Dr.-Ing. A. Meißner
Test Centre Manager




Dipl.-Ing. G. Wiesner
Test Engineer, Fire Protection