Deutsches Institut für Bautechnik

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Bautechnisches Prüfamt

An institution established by the Federal and Laender Governments

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European Technical Assessment ETA-02/0030 of 13 September 2019

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment:	Deutsches Institut für Bautechnik
Trade name of the construction product	Highload Anchor SZ
Product family to which the construction product belongs	Mechanical anchor for use in concrete
Manufacturer	MKT Metall-Kunststoff-Technik GmbH & Co. KG Auf dem Immel 2 67685 Weilerbach
Manufacturing plant	MKT Metall-Kunststoff-Technik GmbH & Co. KG Auf dem Immel 2 67685 Weilerbach
This European Technical Assessment contains	22 pages including 3 annexes which form an integral part of this assessment
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of	EAD 330232-00-0601
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ICC-ES Evaluation Report

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DIVISION: 03 00 00—CONCRETE **Section: 03 16 00—Concrete Anchors** **Division: 05 00 00—METALS** **Section: 05 05 19—Post-Installed Concrete Anchors**	**REPORT HOLDER:** **MKT METALL-KUNSTSTOFF-TECHNIK GmbH & Co. KG**	**EVALUATION SUBJECT:** **MKT SZ CARBON STEEL AND SZ A4 STAINLESS STEEL, HIGH LOAD ANCHORS FOR CRACKED AND UNCRACKED CONCRETE**	

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012, and 2009 *International Building Code*® (IBC)
- 2018, 2015, 2012, and 2009 *International Residential Code*® (IRC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Property evaluated:

- Structural

2.0 USES

The MKT SZ High Load Anchor is used to resist static, wind, and seismic (Seismic Design Categories A through F) tension and shear loads in cracked and uncracked normal-weight or lightweight concrete having a specified compressive strength, f'_c, of 2,500 psi to 8,500 psi (17.2 MPa to 58.6 MPa) [minimum of 24 MPa is required under ADIBC Appendix L, Section 5.1.1].

The anchoring system complies with Section 1901.3 of the 2018 and 2015 IBC, Section 1909 of the 2012 IBC and Section 1912 of the 2009 IBC, and is an alternative to cast-in-place anchors described in Section 1908 of the 2012 IBC and Section 1911 of the 2009 IBC. The anchors may also be used where an engineered design is submitted in accordance with Section R301.1.3 of the IRC.

3.0 DESCRIPTION

3.1 MKT SZ:

3.1.1 General: The MKT SZ Carbon Steel or MKT SZ Stainless Steel A4 High Load Anchor, designated as the SZ or SZ A4 respectively, is a torque-set, sleeve-type mechanical expansion anchor. The SZ is comprised of seven components which vary slightly according to anchor diameter, as shown in Figure 1 of this report. It is available in three head configurations, illustrated in Figure 1 of this report. Only the sizes M8, M10 and M12 are available with a countersunk head.

All carbon steel parts receive a minimum 0.0002-inch-thick (5 µm) galvanized zinc coating according to EN ISO 4042.