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TECHNICAL REPORT

Adit Ltd Industrial Zone Kanot Adom Street 23 Moshav Bnei Re'em Israel	SATRA reference:	SPC2002329	
		2412	1
	Report ID/Issue number:	38845/1	
	Your reference:		
	Date samples received:	28/03/2024	
	Date(s) work carried out:	12/04/2024 to 19/04/2024	
	Date of report:	19/04/2024	

Testing Requirements

Testing of a Type A Anchor, 2 directions of use, to be tested in accordance with EN 795:2012 - Type A

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Report Signed by:

Jake Bellingham

Report Signatory

WORK REQUESTED

Samples of anchor device, described as “Adit Anchor Plate (A.A.C.)”, were received by SATRA on 28th of March 2024, for testing in accordance with EN 795: 2012 type A

CONCLUSIONS

SAMPLE REFERENCE	STANDARD	CLAUSE / PROPERTY	PASS / FAIL
Adit Anchor Plate (A.A.C.)	EN 795: 2012 Type A	4.1 General requirements	PASS
		4.2 Materials	PASS
		4.3 Design and Ergonomics	PASS
		4.4 Specific requirements - type A	PASS

Note 1 – Clauses marked as ‘not assessed’ must be addressed in full before an EC type examination certificate can be issued

TESTING

Testing was carried out in accordance with EN 795: 2012 between the 12th and 19th of April 2024

The anchor device is intended as a type A (permanent) device, intended to be fixed to concrete

For the purposes of testing, the anchor device was installed onto a concrete block, with test forces applied in sheer and tensile directions.

Samples were tested as received, and were not subject to any pre-conditioning processes other than those stated in individual test clauses

Figure 1 – Anchor device described as “Adit Anchor Plate (A.A.C.)”

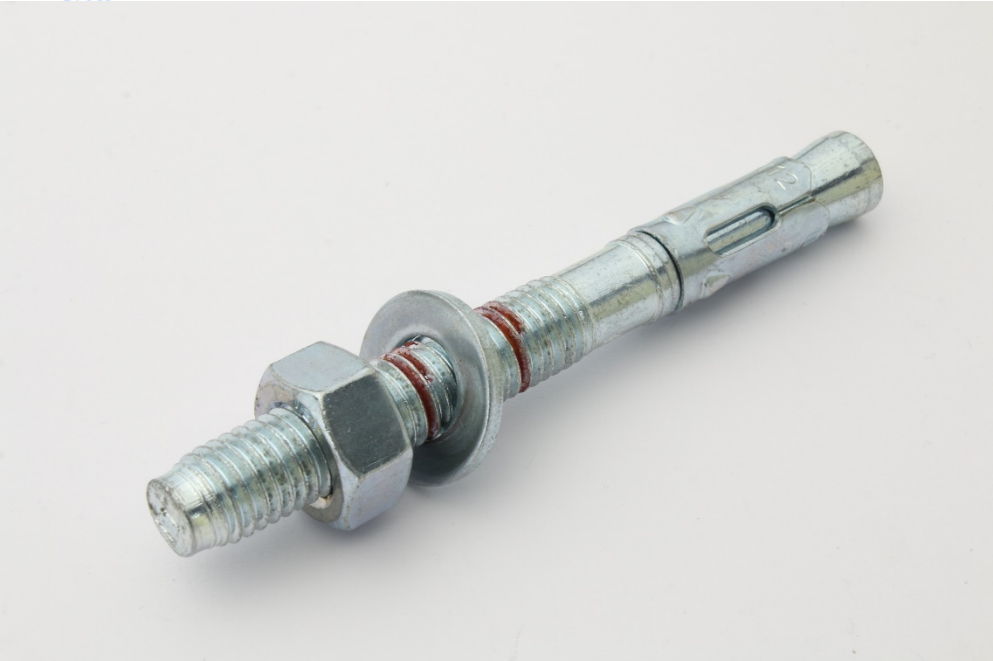

Figure 2 – Anchor fixing described as “MTH M12x 110 through bolt”

TEST RESULTS

Table 1 – Testing of anchor device described as “Adit Anchor Plate (A.A.C.)” in accordance with EN 795: 2012 as a type A device

EN 795: 2012 CLAUSE / TEST	EN 795: 2012 REQUIREMENT	RESULT / COMMENT	PASS / FAIL
4.1 General	Anchor devices shall be designed so that they can be removed from the structure, without damaging the structure or anchor, thus allowing reuse	Anchor can be removed from the structure without causing damage	PASS
	U-bolt clamps shall not be used for terminations in any part of an anchor device	U-bolt clamps are not used as terminations	PASS
	It shall not be possible for elements with an anchor point to become detached unintentionally. If an element can be removed it shall be designed to have at least 2 separate deliberate manual actions	Unintentional detachment is unlikely More than 2 deliberate manual actions are needed to remove the device	PASS
	Anchor devices shall allow connectors to rotate freely and sit in the anchor in the preferred load-bearing position	Connectors are able to freely rotate in their preferred position	PASS
	Where an anchor device comprises more than one element, the design shall be such that those elements cannot appear to be correctly assembled without being positively locked together	Incorrect assembly would be visually evident	PASS
	The mass of any element of an anchor device that is intended to be transported shall be less than 25kg	Mass of anchor: 55g	PASS
	If a fall indicator is incorporated, the indicator shall clearly show when a fall has occurred	Not applicable – Fall indicator not present	N/A
	If an anchor device consists of a combination of several types, it shall be tested for each type and for the combination	Not applicable – Anchor consists of a single combination	N/A
	If the manufacturer permits loading in more than one direction, then each safety critical direction shall be tested	Both sheer and tensile directions have been tested	PASS

EN 795: 2012 CLAUSE / TEST	EN 795: 2012 REQUIREMENT	RESULT / COMMENT	PASS / FAIL
4.2.1	Metallic parts shall show no evidence of any corrosion that could affect the function of the device. There shall be no corrosion of the base material. (White scaling or tarnishing is acceptable). If steel wire ropes are galvanised, this shall be done in accordance with ISO 2232	Corrosion test in accordance with ISO 9227: 2017 - 24 hours Neutral Salt Spray, followed by 1 hour drying, followed by a further 24 hour exposure Temperature: 35 °C Fall out rate: 1.81 ml/hr pH of test solution: 6.6 Specific gravity of test solution: 1.03 White scaling present on anchor – function remains See notes 2	PASS
4.2.2 Materials – Rope and webbing	Fibre ropes, webbing and sewing threads shall be made from virgin filament or multi-filament synthetic fibres Threads shall be of a contrasting shade or colour to the webbing or rope	Not applicable – no textiles present	N/A
4.2.3 Materials - Connectors	Connectors shall conform to EN 362	Not applicable – no connectors included	N/A
4.3 Design and ergonomics	Anchor devices shall not have sharp edges or burrs that may cause injury to the user or that may damage itself or any other equipment it may come into contact with	No sharp edges or burrs present	PASS
4.4.1.1 Specific requirements – Type A anchor Deformation test	No part of a type A anchor device which is intended to deform, e.g. to absorb energy, shall demonstrate permanent deformation of more than 10 mm in the direction of loading.	Not applicable – Device not intended to deform	N/A
4.4.1.2 Specific requirements – Type A anchor dynamic strength & integrity test	When tested dynamically with a rigid steel mass of 100 kg, the test mass shall be arrested. The anchor must then hold an increased mass of 300kg for 3 minutes	*Sheer* 150kg mass successfully arrested Peak force: 11.28kN Deflection: 3mm Residual strength of 300kg held for 3 minutes *Tensile* 150kg mass successfully arrested Peak force: 10.26kN Deflection: 14mm Residual strength of 300kg held for 3 minutes	PASS

EN 795: 2012 CLAUSE / TEST	EN 795: 2012 REQUIREMENT	RESULT / COMMENT	PASS / FAIL
4.4.1.3 Specific requirements – Type A anchor static strength test	Metallic elements shall sustain a force of at least 12kN for 3 minutes without release, and non-metallic elements shall sustain a force of at least 18kN for 3 minutes without release	*Sheer* 12kN of force successfully maintained for 3 minutes 15kN of force successfully maintained for 3 minutes 26.58kN reached before the through bolt provided snapped *Tensile* 12kN of force successfully maintained for 3 minutes 15kN of force successfully maintained for 3 minutes 18.59kN reached before the through bolt provided snapped	PASS

ADDITIONAL INFORMATION / NOTES

Table 2 – Additional uncertainty of measurement information

CLAUSE	TEST / COMPONENT	UoM
EN 795:2012 4.4.1.1 Specific requirements – Type A anchor deformation test	Applied Force	±50N
EN 795: 2012 4.4.1.2 Specific requirements – Type A anchor dynamic strength & integrity test	Length Measurement	± 40mm
EN 795: 2012 4.4.1.3 Specific requirements – Type A anchor static strength test	Applied Force	±50N
ISO 9227: 2017 Corrosion resistance	Temperature	± 0.99 °C
	Fall-out rate of collected solution	± 2.25 ml (± 0.04 ml/hour for 24 hours)
	Specific gravity of collected solution	± 0.0010 g/ml
	pH value of collected solution	± 0.1
	Angle of sample mounting (if applicable)	± 1.44°

Note 2 – 4.2.1 Corrosion resistance. Samples were placed in a horizontal orientation during testing

Note 3 – Static strength testing carried out by manually increasing loading, therefore rate of stressing / crosshead velocity as per EN 364: 1992 Clauses 4.1.2.1 & 4.1.2.2 cannot be accurately determined (see VG11 recommendation for use sheet CNB/P/11.023 dated 25.10.2007)

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