

	Declaration of Performance In accordance with the Construction Products Regulation Nr.: 305/2011
	Nr.: 17/01

1. Unique identification of the product type
TX 1, TX1 A4

2. Intended use or intended uses of the construction product in accordance with the harmonized technical specification in force as foreseen by the manufacturer:
Torque – controlled galvanized metal anchor of size M8, M10, M12 and M16 for installation in cracked and uncracked concrete.

3. Name, registered trade name or registered trade mark and address of the manufacturer in accordance with article 11 (5)
AS system d.o.o., Obrtniška ulica 14, 3240 Šmarje pri Jelšah, Slovenija, www.as-system.si

4. System or systems of assessment and verification of constancy performance of a construction product, as specified in Annex V
Sistem 1

5. European Assessment Document:	EAD 330232-00-0601
European Technical Assessment:	ETA-17/0638
Technical Assessment Body:	ZAG

6. Certificate of Acceptance of Properties:	1404-CPR-2972
Notified Body	ZAG (1404)

7. Essential characteristics			Dimension			
			M8	M10	M12	M16
Installation parameters						
d_o	Nominal diameter of drill bit	[mm]	8	10	12	16
h_{nom}	Anchorage depth	[mm]	55	60	80	100
h_{ef}	Effective anchorage depth	[mm]	41	45	62	88
h_{min}	Minimum thickness of concrete member	[mm]	100	120	140	160
T_{inst}	Torque moment	[Nm]	15	25	65	110
s_{min}	Minimum spacing	[mm]	45	60	70	60
c_{min}	Minimum edge distance	[mm]	45	70	85	70

$N_{Rk,s}$	Characteristic tension steel failure	[kN]	15	22	45	68
γ_{MsN}	Partial safety factor	[-]	1,4			
Tension steel failure mode TX1 A4						
$N_{Rk,s}$	Characteristic tension steel failure	[kN]	15	25	47	79
γ_{MsN}	Partial safety factor	[-]	1,4			
Pull-out failure mode						
$N_{Rk,p}$	Characteristic pull – out failure in non-cracked concrete	[kN]	/1)	11	18	25
$N_{Rk,p}$	Characteristic pull – out failure in cracked concrete	[kN]	4	6	8	18
γ_2	Partial safety factor	[-]	1,0			
γ_{Mp}		[-]	1,5			
$S_{cr,N}$	Characteristic spacing	[mm]	3 x h_{ef}			
$C_{cr,N}$	Characteristic edge distance	[mm]	1,5 x h_{ef}			
$\psi_{C30/37}$	Increasing factor for $N_{Rk,p}$	[-]	1,00	1,08	1,22	1,21
$\psi_{C40/50}$		[-]	1,00	1,14	1,41	1,39
$\psi_{C50/60}$		[-]	1,00	1,20	1,58	1,55
Concrete cone failure mode						
k_{Cr}	Factor for cracked concrete CEN/TS 1992-4-4 §. 7.2.1.4	[-]	7,7			
k_{Ucr}	Factor for un - cracked concrete CEN/TS 1992-4-4 §. 6.2.1.4	[-]	11,0			
γ_{Mc}	Partial safety factor	[-]	1,5			
Splitting failure mode						
$S_{cr,sp}$	Characteristic spacing	[mm]	3 x h_{ef}			
$C_{cr,sp}$	Characteristic edge distance	[mm]	1,5 x h_{ef}			
γ_{Mc}	Partial safety mode	[-]	1,5			
Displacement under tension load						
Uncracked concrete C20/25						
N	Service tension load	[kN]	6,20	5,20	8,60	11,90
δ_{N0}	Short term displacement	[mm]	0,12	0,06	0,05	0,17
$\delta_{N\infty}$	Long term displacement	[mm]	1,56	1,59	1,73	1,65
Cracked concrete C20/25						
N	Service tension load	[kN]	1,90	2,90	3,80	8,60
δ_{N0}	Short term displacement	[mm]	0,83	0,80	0,49	1,40
$\delta_{N\infty}$	Long term displacement	[mm]	1,56	1,59	1,73	1,65

1) The pull-out is not decisive

8. The characteristics of the product referred to in point 1, in accordance with the characteristics set out in points 7.

The manufacturer referred to in point 3 is solely responsible for issuing the declaration of performance:

Signed for and on behalf of the manufacturer:

Name and position	Place and date	Signature
Aleš Seidl, director	Šmarje pri Jelšah, 25.09.2020	