



No. DEA990915 (ver.2)

Declaration of Performance

Svedebuen 2-6 DK-3230
Tlf.: +45 70227979
salg@kyocera-senco.dk

Expandet ESI Xtreme Pro (Styrene Free Injection Mortar)

Intended use or uses of the construction product according to ETAG 001 parts 1 and 5 EOTA TR023		
Generic type		Bonded anchor for anchorage of post-installed rebar
Base material		Concrete C12/15 to C50/60 (CL 0,40) acc. to EN 206-1:2003
Use	Material	Straight deformed reinforcing bars, diameter 8 - 32 mm, mechanical properties according Annex C, EN 1992-1-1 & EN 10080. (Class B & C are recommended)
Loading		Static and quasi-static loads
Service temperature range		-40°C to +80°C (max. short term temperature +80°C and max. long term temperature +50°C).
Use category 1		Dry and wet concrete. Overhead installation is allowed. Drilling performed with hammer drilling or compressed air drilling. • Overlapping joints with existing reinforcement in a building component • Anchoring of the reinforcement at a slab or beam support; end support/bearing of a slab designed as simply supported as well as its reinforcement for restraint forces. • Anchoring of reinforcement of building components stressed primarily in compression. • Anchoring of reinforcement to cover the line of acting tensile forces.
ETA - 16/0960 issued by		DIBT
On the basis of		ETAG 001 Part 5, April 2013 used as European Assessment Document acc. to Art. 66 § 3 of Regulation (EU) No 305/2011.
Notified Body		NB 2873



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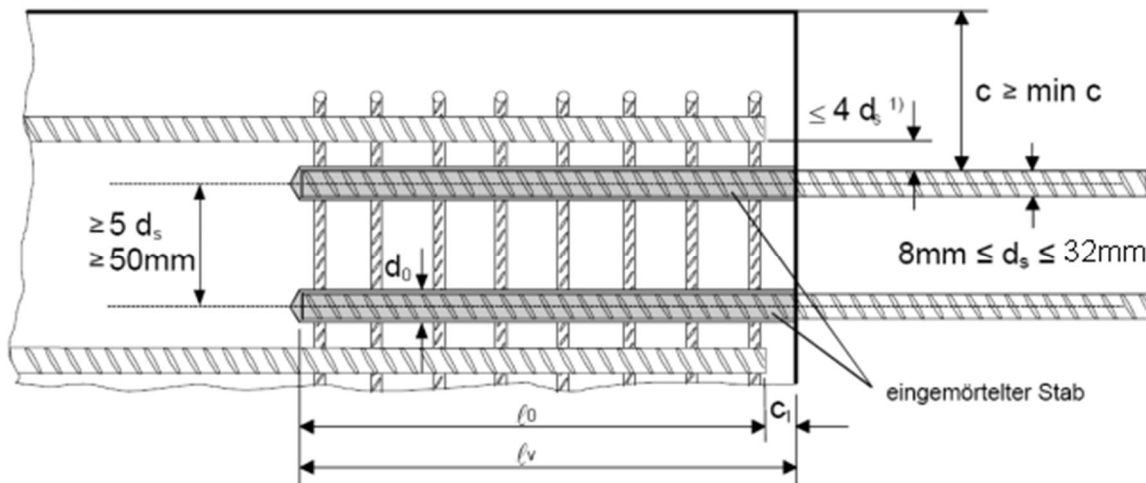
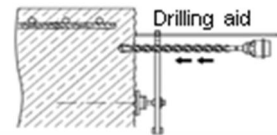
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Declared performances according to ETAG 001 & TR023

Essential Characteristics			Performance										
			Ø 8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø22	Ø24	Ø25	Ø28	Ø32
Installation parameters													
Ø d _s	Diameter of rebar	[mm]	8	10	12	14	16	20	22	24	25	28	32
d ₀	Nominal diameter of drill bit	[mm]	12	14	16	18	20	25	28	32	32	35	40
l _v	Max permissible anchorage depth	[mm]	10	100	120	140	160	200	200	200	200	100	100
Minimum concrete cover	Drilling Method	Rebar Ø	Without drilling aid					With drilling aid					
	Hammer drilling (HD)	< 25	30 mm + 0,06 · l _v ≥ 2 ϕ					30 mm + 0,02 · l _v ≥ 2 ϕ					
		≥ 25	40 mm + 0,06 · l _v ≥ 2 ϕ					40 mm + 0,02 · l _v ≥ 2 ϕ					
	Compressed air drilling (CD)	< 25	50 mm + 0,08 · l _v					50 mm + 0,02 · l _v					
		≥ 25	60 mm + 0,08 · l _v					60 mm + 0,02 · l _v					



Design values of ultimate bond resistance f_{bd}^(1,2) for all drilling methods and good bond conditions

Essential Characteristics				Performance	
				Ø8 to Ø25	Ø28 to Ø32
f _{bd}	Concrete class	C12/15	[N/mm ²]	1,6	1,6
f _{bd}	Concrete class	C16/20	[N/mm ²]	2,0	2,0
f _{bd}	Concrete class	C20/25	[N/mm ²]	2,3	2,3
f _{bd}	Concrete class	C25/30	[N/mm ²]	2,7	2,7
f _{bd}	Concrete class	C30/37	[N/mm ²]	3,0	3,0
f _{bd}	Concrete class	C35/45	[N/mm ²]	3,4	3,4
f _{bd}	Concrete class	C40/50	[N/mm ²]	3,7	3,7
f _{bd}	Concrete class	C45/55	[N/mm ²]	4,0	3,7
f _{bd}	Concrete class	C50/60	[N/mm ²]	4,3	3,7

⁽¹⁾ Values for f_{bd} are valid for good bond conditions according to EN 1992-1-1. For all other bond conditions multiply the values for f_{bd} by 0.7.

⁽²⁾ Design values for f_{bd} is based on a γ_c = 1,5 acc. to Eurocode 1992-1-1



EXPANDET®



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The performance of the product identified above is in conformity with the set of declared performance/s.
This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of Expandet Screw Anchors A/S by:

Place and date of issue: Græsted, 23-02-2022

Lars Aa. Mortensen, Head of Technical Department