



Declaration of Performance
BIT-EX 1-1 (Bonded anchor)
BIT United Ltd
London Road 5, SW17 5JR, UK

BIT-EX 1-1, with post-installed rebar – 1220-CPR-1563

Intended use or uses of the construction product according to ETAG 001 parts 1 and 5 EOTA TR023	
Generic type	Bonded anchor for post-installed rebar connections designed according EN 1992-1-1 (Eurocode 2).
Base material	Un-cracked concrete C12/15 to C50/60 according to EN 206-1 .
Use	Material According EN 1992-1-1 annex C, tables C, tables C.1 and C.2N, bars and de-coiled rods B and C
Loading	Static or quasi-static.
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 Chloride content in concrete is limited to 0.40% (Cl 0.40). Hammer drilling and Diamond drilling
ETA - 15/0347 issued by	ITeC dated 17/04/2014
On the basis of	ETAG 001 Part 5 TR023 under system 1.

Name, registered trade name or registered trade mark and contact address of manufacturer as required pursuant to Article 11(5):

BIT United Ltd, London Road 5, SW17 5JR, UK - www.bitunited.co.uk

Where applicable, name and contact address of authorised representative whose mandate covers the tasks specified in Article 12(2):

Not applicable

System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V :

System 1

In case of the declaration of performance concerning a construction product covered by a harmonised standard:

Not applicable



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In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:

ITeC Institut de Tecnologia de la Construcció de Catalunya issued ETA-15/0347 on the basis of ETAG 001 Part 5 TR023 under system 1.

ITeC Institut de Tecnologia de la Construcció de Catalunya (ID nº 1220) issued the Certificate of Conformity nº 1220-CPR-1563.

9. Declared performance:

Declared performances according to ETAG 001 parts 1 and 5 – TR023

Essential Characteristics			Performance								
			Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø28	Ø32
Installation parameters											
D	Rebar diameter for hammer drilling and diamond drilling	[mm]	8	10	12	14	16	20	25	28	32
d ₀	Nominal diameter of drill bit for hammer drilling and diamond drilling	[mm]	12	14	16	18	20	25	30	35	40
d _b	Diameter of steel brush for hammer drilling and diamond drilling	[mm]	14	16	19	20	22	22	32	37	44
l _{b min}	Minimum anchorage length for hammer drilling and diamond drilling	[mm]	175	215	260	300	345	430	535	600	685
l _{o min}	Minimum overlap length for hammer drilling and diamond drilling	[mm]	300	300	300	315	360	450	565	630	720
l _{v max}	Maximum anchorage depth for hammer drilling and diamond drilling	[mm]	700	900	1000	1000	1400	1800	2000	2000	2000
	Minimum concrete cover min c for hammer drilling	[mm]	72	84	96	108	114	138	150	150	150
	Minimum concrete cover min c for diamond drilling	[mm]	106	122	138	154	162	194	210	210	210

Design Values of ultimate bond resistance f_{bd} according EN 1992-1-1

f_{bd} for hammer drilling	C12/15	[N/mm ²]	1,6											
	C16/20	[N/mm ²]	2,0											
	C20/25	[N/mm ²]	2,3											
	C25/30	[N/mm ²]	2,7											
	C30/37	[N/mm ²]	3											
	C35/45	[N/mm ²]	3,4											
	C40/50	[N/mm ²]	3,7									3,4		
	C45/55	[N/mm ²]	4,0									3,7		
	C50/60	[N/mm ²]	4,3									4,0		
f_{bd} for diamond drilling	C12/15	[N/mm ²]	1,6											
	C16/20	[N/mm ²]	2,0											
	C20/25	[N/mm ²]	2,3									2,0		
	C25/30	[N/mm ²]	2,7									2,3		
	C30/37	[N/mm ²]	3,0									2,7	2,3	
	C35/45	[N/mm ²]	3,4									3,0	2,3	
	C40/50	[N/mm ²]	3,7									3,4	3,0	2,7
	C45/55	[N/mm ²]	4,0									3,7	3,4	2,7
	C50/60	[N/mm ²]	4,3									4,0	3,4	2,7



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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 BIT United Ltd by:

Place and date of issue:
