sistemi di fissaggio BOSSONG®
BOSSONG S.p.A. Via Enrico Fermi, 51 (Z.I.2) - 24050 GRASSOBBIO (Bergamo) Italy
Tel +39 035 3846 011 - Fax +39 035 3846 012 - www.bossong.com - info@bossong.com
FASTENING SYSTEMS SYSTEMES DE FIXATION BEFESTIGUNGSSYSTEME SISTEMAS DE FIJACIÒN

CE

DECLARATION OF PERFORMANCE
In accordance with Construction Products Regulation n° 305/2011

DoP No. 09/0246

Unique identification code of the product-type:

BCR V PLUS / BCR V PLUS-W / BCR V PLUS-T

2. Type, batch, series number or any other element allowing identification of the construction product in accordance with Article 11(3)

BCR + content in ml + V PLUS. Example BCR 400 V PLUS

3. Intended use or uses of the construction product, in accordance with the relevant harmonized technical specification, as intended by the manufacturer:

Intended use		Chemical anchor for post-installed connections of bars with improved adhesion											
Measures		Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø22	Ø24	Ø25	Ø28	Ø30	Ø32
lv [mm]	**min**	According to EN 1992-1-1 and EAD330087-01-0601											
	max	250*-400	250*-500	250*-600	700	800	1000	1000	1000	1000	1000	1000	1000
		* Maximum lengths valid for drilling with reduced diameter											
Support type and resistance		Normal weight concrete, resistance class from C12/15 minimum to C50/60 maximum in accordance with EN 206-1.											
Condition of the base material		Cracked and non-cracked concrete.											
Metallic material of the anchor and related environmental exposure condition		Straight reinforcing bars with category B or C characteristics according to Annex C of EN 1992-1-1 tables C1 and C2N. Exposure categories from X0 to XA according to EN 206-1.											
Type of load		Static and quasi-static load. Seismic load. Fire resistant. Service life of 50 and 100 years											
Service temperatures		from -40°C to +80°C (max. short-term temperature +80°C and max. long-term continuous temperature +50°C).											
Usage category		Dry and wet concrete, not in flooded holes. Non- carbonated concrete with an allowable chloride content equal to 0.40% (Cl 0.40) relative to the cement content in accordance with EN 206-1. Overhead installation permitted. Drilling with drill and vacuum bits											

4. Name, registered trade name or registered trademark and address of the manufacturer in accordance with Article 11(1).

Bossong SpA - via Enrico Fermi 49/51 - 24050 Grassobbio (Bg) – Italy – www.bossong.com

5. Where appropriate, name and address of the authorized representative whose mandate covers the tasks referred to in Article 12(2):

Not applicable

Cap.Soc. € 520.000
S.V. € 260.000
P.IVA IT 00227840162
R.E.A. BG n.98000
Iscr.Reg.Impr. BG n. 00227840162

BPU – Banca Popolare di Bergamo
Agenzia di Longuelo Via Mattioli, 69
ABI 5428 CAB 11103 C/C 220
IBAN:
IT70 C054 2811 1030 0000 0000 220

Deutsche Bank S.p.A.
Sede Bergamo Via Camozzi,82
ABI 3104 CAB 11100 C/C13030
IBAN:
IT 76 J 03104 11100 000000013030

ASSOCIATO MEMBER OF ECAP assorestauro
Numero Verde 800121962

6. System or systems for evaluating and verifying the constancy of performance of the construction product referred to in Annex V:
System 1

7. In the case of a declaration of performance relating to a construction product that falls within the scope of a harmonized standard:
Not applicable

8. In the case of a declaration of performance relating to a construction product for which a European technical assessment has been issued:
I ITB released ETA-09/0246 based on EAD 330087-01-0601: Systems for post- installed rebar connection with mortar . ITB (n°1488) carried out: determination of the product-type based on type tests (including sampling), type calculations, values taken from tables or descriptive documentation of the product; initial inspection of the manufacturing plant and factory production control; continuous surveillance, evaluation and verification of factory production control, with attestation system 1 and has issued the certificate of conformity n° 1488-CPR-0123/W.

9. . Declared performance:

HARMONIZED TECHNICAL SPECIFICATION: EAD330087-01-0601												
ESSENTIAL FEATURES	**PERFORMANCE IN ACCORDANCE WITH ETA-09/0246**											
Installation parameters	**Ø8**	**Ø10**	**Ø12**	**Ø14**	**Ø16**	**Ø20**	**Ø22**	**Ø24**	**Ø25**	**Ø28**	**Ø30**	**Ø32**
Ø [mm]	8	10	12	14	16	20	22	24	25	28	30	32
d_0 [mm]	10**-12	12**-14	14**-16	18	20	25	26	30	30	35	35	40
to [mm]	40 mm ≥ 4·Ø											
C_{min} [mm]	30 + 0.06 l_v ≥ 2·Ø for Ø<25 mm 40 + 0.06 l_v ≥ 2·Ø for Ø≥25 mm (the minimum concrete cover indicated by EN 1992-1-1 must however be respected)											
Anchoring depth	**Ø8**	**Ø10**	**Ø12**	**Ø14**	**Ø16**	**Ø20**	**Ø22**	**Ø24**	**Ø25**	**Ø28**	**Ø30**	**Ø32**
$l_{b,min}$ [mm] in trazione	max {0,3 · $l_{b,rqd}$; 10 Ø; 100 mm}											
$l_{b,min}$ [mm] in compressione	max {0,6 · $l_{b,rqd}$; 10 Ø; 100 mm}											
$l_{0,min}$ [mm]	max {0.3 α 6 $l_{b,rqd}$; 15 Ø; 200mm}											
$l_{b,rqd}$ [mm]	in accordance with EN 1992-1-1 point 8.4.3											
Amplification factor for classes. C12/15 to C50/60 for 50 and 100 years	**Ø8**	**Ø10**	**Ø12**	**Ø14**	**Ø16**	**Ø20**	**Ø22**	**Ø24**	**Ø25**	**Ø28**	**Ø30**	**Ø32**
α_{lb}	1.0											

Adhesion efficiency factor k_b for 50 and 100 years	**C12/15**	**C16/20**	**C20/25**	**C25/30**	**C30/37**	**C35/45**	**C40/50**	**C45/55**	**C50/60**
Ø8 to Ø14	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ø16 to Ø20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0,93
Ø22	1,00	1,00	1,00	1,00	1,00	1,00	1,00	0,92	0,93
Ø24 a Ø25	1,00	1,00	1,00	1,00	1,00	1,00	1,00	0,92	0,86
Ø28	1,00	1,00	1,00	1,00	1,00	1,00	0,91	0,84	0,79
Ø30 a Ø32	1.00	1.00	1.00	1.00	0.89	0.80	0.73	0.67	0.63

** Values valid for drilling with reduced diameter.

HARMONIZED TECHNICAL SPECIFICATION: EAD330087-00-0601 – STATIC-QUASI-STATIC CONDITION									
ESSENTIAL FEATURES	**PERFORMANCE IN ACCORDANCE WITH ETA-09/0246**								
*** Design adhesion values $f_{bd,PIR}$ according to EN 1992-1-1 [N/mm²] for 50 and 100 years**	**C12/15**	**C16/20**	**C20/25**	**C25/30**	**C30/37**	**C35/45**	**C40/50**	**C45/55**	**C50/60**
Ø8 to Ø14	1.60	2.00	2.30	2.70	3.00	3.40	3.70	4.00	4.30
Ø16 a Ø20	1.60	2.00	2.30	2.70	3.00	3.40	3.70	4.00	4.00
Ø22	1.60	2.00	2.30	2.70	3.00	3.40	3.70	3,70	4,00
Ø24 a Ø25	1,60	2,00	2,30	2,70	3,00	3,40	3,70	3,70	3,70
Ø28	1,60	2,00	2,30	2,70	3,00	3,40	3,40	3,40	3,40
Ø30 a Ø32	1,60	2,00	2,30	2,70	2,70	2,70	2,70	2,70	2,70

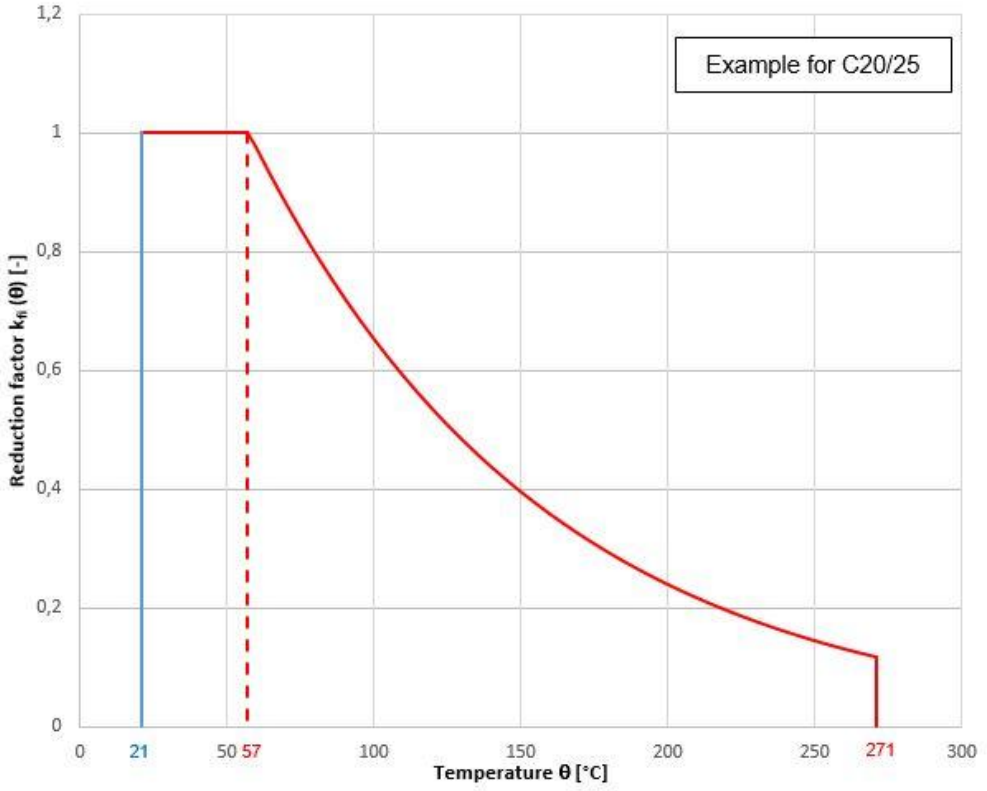
* Values valid only for good adhesion conditions as described in EN 1992-1-1. For other adhesion conditions multiply the values by 0.7

HARMONIZED TECHNICAL SPECIFICATION: EAD330087-01-0601												
ESSENTIAL FEATURES	**PERFORMANCE IN ACCORDANCE WITH ETA-09/0246**											
Amplification factor for classes. C12/15 to C50/60 for 50 and 100 years in case of seismic action	**Ø8**	**Ø10**	**Ø12**	**Ø14**	**Ø16**	**Ø20**	**Ø22**	**Ø24**	**Ø25**	**Ø28**	**Ø30**	**Ø32**
$\alpha_{lb,seis}$	1.0											
Adhesion efficiency factor $k_{b,seis}$ for 50 and 100 years	**C16/20**		**C20/25**		**C25/30**		**C30/37**		**C35/45**	**C40/50**	**C45/55**	**C50/60**
Ø12 to Ø25	1.00		1.00		0.85		0.77		0.68	0.62	0.58	0.53
Ø28 to Ø32	1.00		0.87		0.74		0.67		0.59	0.54	0.50	0.47

HARMONIZED TECHNICAL SPECIFICATION: EAD330087-01-0601 – SEISMIC CONDITION								
ESSENTIAL FEATURES	**PERFORMANCE IN ACCORDANCE WITH ETA-09/0246**							
*** Design adhesion values $f_{bd,seis}$ according to EN 1992-1-1 [N/mm²] for 50 and 100 years**	**C16/20**	**C20/25**	**C25/30**	**C30/37**	**C35/45**	**C40/50**	**C45/55**	**C50/60**
Ø12 to Ø25	2.00	2.30	2.30	2.30	2.30	2.30	2.30	2.30
Ø25 to Ø32	-2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00

* Values valid only for good adhesion conditions as described in EN 1992-1-1. For other adhesion conditions multiply the values by 0.7

HARMONIZED TECHNICAL SPECIFICATION: EAD 330087-01-0601	
ESSENTIAL FEATURES	**PERFORMANCE**
Reaction to fire	In the final application the layer thicknesses of product are approximately 1 ÷ 2 mm and most of these products are classified in class A1 according to decision THERE IS 96/603/EC . Therefore one can assume that the material binder (resin synthetic or a mixture of synthetic resin and cementitious) in connection with the metal anchor, in use final application, Not makes any contribution to the development of fire or to a fire fully developed and it hasn't no influence on the risk of smoke development .

HARMONIZED TECHNICAL SPECIFICATION: EAD 330087-01-0601 – FIRE RESISTANCE	
ESSENTIAL FEATURES	**PERFORMANCE IN ACCORDANCE WITH ETA-09/0246**
Fire exposure reduction factor. $k_{fi}(\theta)$ for 50 and 100 years	For 21°C ≤θ ≤ 271°C $k_{fi}(\theta) = \frac{17{,}563 \cdot e^{-0.01\theta}}{f_{bd,PIR} \cdot 4{,}3} \leq 1{,}0$ Forθ > 271°C $k_{fi}(\theta) = 0$ 
*** Design adhesion values $f_{bd,fi}$ for fire exposure for 50 and 100 years**	$fbd,fi(\theta) = kfi(\theta) \cdot fbd,PIR \cdot \frac{\gamma_c}{\gamma M,fi}$

LEGEND OF SYMBOLS	
OR	Improved grip bar nominal diameter
d_0	Hole diameter
lv	Effective anchoring depth
to	Minimum net distance between two post-installed bars
C_{min}	Minimum concrete cover
$l_{b,min}$	Minimum bar anchoring depth
$l_{0,min}$	Minimum bar overlap depth
$l_{b,rqd}$	Basic anchor length required
α_{lb}	Amplification factor
k_b	Membership efficiency factor
γ_c	Concrete safety factor
$\gamma_{M,fi}$	Safety factor for exceptional actions.
$f_{bd,PIR}$	Adherence to the project in case of static action.
θ	temperature
$k_{fi}(\theta)$	Reduction coefficient for fire prevention actions.
$f_{bd,fi}$	Adherence to the project in case of fire resistance.

REACH Regulation n°1907/2006

Esteemed customer,
We inform you that our company within the REACH regulation supply chain is classified as a downstream user of substances and preparations.
Regarding the product defined in point 1, we want to confirm that it does not currently contain substances considered SVHC based on the list published at:
http://echa.europa.eu/chem_data/candidate_list_table_en.asp .
The product safety data sheet can be requested from our technical office: tek@bossong.com or tek3@bossong.com and can be downloaded from our website www.bossong.com .

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10. The performance of the product referred to in points 1 and 2 is in conformity with the declared performance referred to in point 9.
This declaration of performance is issued under the exclusive responsibility of the manufacturer referred to in point 4.
Signed for and on behalf of:

Name and Cargo	Place and date of issue	Signature
Andrea Taddei **Director General**	**Grassobbio (Bg) - Italy** **21.07.2025**	

Note: This DoP replaces the previous version dated 18.01.2023
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