

	DECLARATION OF PERFORMANCE In accordance with Construction Products Regulation n° 305/2011
	DoP No. 15/0708

1. Unique identification code of the product-type:
BCR VINYL

2. Type, batch, series number or any other element allowing identification of the construction product in accordance with Article 11(4):
BCR + content in ml+ VINYL. Example: BCR 400 VINYL

3. Intended use or uses of the construction product, in accordance with the relevant harmonized technical specification, as intended by the manufacturer:
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Intended use	Chemical anchor for anchoring threaded rods and rods with improved adhesion.					
Measures		M8/Ø8	M10/Ø10	M12/Ø12	Ø14	M16/Ø16
hef [mm]	min	60	70	80	80	100
	max	160	200	240	280	320
Support type and resistance	Reinforced or non-reinforced concrete of normal weight, resistance class from C20/25 minimum to C50/60 maximum in accordance with EN 206-1.					
Condition of the base material	Not cracked					
Metallic material of the anchor and related environmental exposure condition	Threaded rods:					
	X1) structures subject to dry internal conditions: elements made of galvanized steel (galvanized or hot galvanized) and stainless steel A2, A4 or high corrosion resistance steel (HCR).					
	X2) structures subject to external atmospheric exposure (including industrial and marine environment) and permanently humid internal conditions, if there are no particular aggressive conditions: elements made of a4 stainless steel or high resistance steel (HCR).					
Type of load	Static and quasi-static load.					
	a) from -40°C to +40°C (max. short-term temperature +40°C and max. long-term continuous temperature +24°C). b) from -40°C to +50°C (max. short-term temperature +50°C and max. long-term continuous temperature +40°C).					
Service temperatures						
Usage category	Category 1: dry, wet concrete. Overhead installation permitted. Drilling with drill.					

4. Name, registered trade name or registered trade mark and address of the manufacturer in accordance with Article 11(5):
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

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:
ETA-DK released ETA-15/0708 based on EAD 330499-01-0601.
TZUS (n°1020) 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° 1020-CPR-090-044088.

9. Declared performance:

HARMONIZED TECHNICAL SPECIFICATION: EAD 330499-01-0601 – Threaded rods				
ESSENTIAL FEATURES	PERFORMANCE IN ACCORDANCE WITH ETA-15/0708 – Threaded rods			
Installation parameters	M8	M10	M12	M16
d [mm]	8	10	12	16
d ₀ [mm]	10	12	14	18
d _{fix} [mm]	9	12	14	18
h ₁ [mm]	h _{and f} + 5 mm			
h _{min} [mm]	MAX { h _{ef} + 30 mm; ≥ 100mm; h _{ef} + 2d ₀ }			
T _{inst} [Nm]	10	20	40	80
t _{fix} [mm]	from 0 to 1500 mm			
S _{min} [mm]	40	50	60	75
C _{min} [mm]	40	40	40	50
γ ₂ [-] Category 1	1.20			
Resistance for tensile loads	M8	M10	M12	M16
Combined pull-out resistance and concrete cone				
τ _{Rk,ucr} [N/mm ²] concrete C20/25 Temperature range -40°C/+40°C (T _{mlp} = +24°C)	13.0	13.0	11.0	9.5
τ _{Rk,ucr} [N/mm ²] concrete C20/25 Temperature range -40°C/+50°C (T _{mlp} = +40°C)	12.0	12.0	11.0	9.0
ψ _{c,ucr} C30/37 [-]	1.00			
ψ _{c,ucr} C40/50 [-]	1.00			
ψ _{c,ucr} C50/60 [-]	1.00			
Resistance for tensile loads	M8	M10	M12	M16
Splitting resistance (concrete cracking)				
S _{cr,sp} [mm]	if h = h _{min}			
	if h _{min} ≤ h < 2 h _{ef}			
	if h ≥ 2 h _{ef}			
C _{cr,sp} [mm]	0.5 S _{cr,sp}			
Resistance for shear loads	M8	M10	M12	M16
Resistance to undermining from concrete				
k [-]	2.0			
Movements under conditions of service	M8	M10	M12	M16
Tensile loads				
F _{ucr} [kN] for concrete from C20/25 to C50/60	9.5	13.8	16.9	23.6

$\delta_{0,ucr}$ [mm]	0.30	0.30	0.35	0.35
$\delta_{\infty,ucr}$ [mm]	0.73			

HARMONIZED TECHNICAL SPECIFICATION: 'EAD 330499-01-0601 – Threaded rods				
ESSENTIAL FEATURES	PERFORMANCE IN ACCORDANCE WITH ETA-15/0708 – Threaded rods			
Movements under conditions of service	M8	M10	M12	M16
Shear loads				
F_{ucr} [kN] for concrete from C20/25 to C50/60	10.5	16.6	24.1	44.8
$\delta_{0,ucr}$ [mm]	2.00			
$\delta_{\infty,ucr}$ [mm]	3.00			

HARMONIZED TECHNICAL SPECIFICATION: 'EAD 330499-01-0601					
ESSENTIAL FEATURES	PERFORMANCE IN ACCORDANCE WITH ETA-15/0708 – Improved grip bars				
Installation parameters	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16
d [mm]	8	10	12	14	16
d_0 [mm]	12	14	16	18	20
h_1 [mm]	h and f + 5 mm				
h_{min} [mm]	MAX { $h_{ef} + 30$ mm; ≥ 100 mm; $h_{ef} + 2d_0$ }				
t_{fix} [mm]	from 0 to 1500 mm				
S_{min} [mm]	50	60	65	75	80
C_{min} [mm]	40	40	40	40	50
γ_2 [-] Category 1	1.20				
Resistance for tensile loads	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16
Combined pull-out resistance and concrete cone					
$\tau_{Rk,ucr}$ [N/mm ²] concrete C20/25 Temperature range -40°C/+40°C ($T_{mlp} = +24^\circ\text{C}$)	12.0	11.0	10.0	10.0	9.0
$\tau_{Rk,ucr}$ [N/mm ²] concrete C20/25 Temperature range -40°C/+50°C ($T_{mlp} = +40^\circ\text{C}$)	12.0	10.0	10.0	9.5	8.5
$\Psi_{c,ucr}$ C30/37 [-]	1.00				
$\Psi_{c,ucr}$ C40/50 [-]	1.00				
$\Psi_{c,ucr}$ C50/60 [-]	1.00				
Resistance for tensile loads	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16
Splitting resistance (concrete cracking)					
$S_{cr,sp}$ [mm]	if $h = h_{min}$	4.0 h_{eph}			
	if $h_{min} \leq h < 2 h_{ef}$	interpolated value			
	if $h \geq 2 h_{ef}$	$20 d (\tau_{Rk,ucr}/7.5)^{0.5} \leq 3 h_{ef}$			
$C_{cr,sp}$ [mm]	0.5 $S_{cr,sp}$				
Resistance for shear loads	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16
Resistance to undermining from concrete					
k [-]	2.0				
Movements under conditions of service	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16
Tensile loads					
F_{ucr} [kN] for concrete from C20/25 to C50/60	7.7	10.0	12.6	12.6	18.3
$\delta_{0,ucr}$ [mm]	0.35	0.35	0.40	0.40	0.40
$\delta_{\infty,ucr}$ [mm]	0.73				
Movements under conditions of service	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16
Shear loads					
F_{ucr} [kN] for concrete from C20/25 to C50/60	5.5	8.6	12.3	16.8	21.9
$\delta_{0,ucr}$ [mm]	2.00				
$\delta_{\infty,ucr}$ [mm]	3.00				

HARMONIZED TECHNICAL SPECIFICATION: EAD 330499-01-0601	
ESSENTIAL FEATURES	PERFORMANCE
Reaction to fire	In the final application the thickness of the layer of product are approximately $1 \div 2$ mm and most of these products are classified in class A1 according to the 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 330499-01-0601	
ESSENTIAL FEATURES	PERFORMANCE
Fire resistant	NPD

HARMONIZED TECHNICAL SPECIFICATION: EAD 330499-01-0601	
ESSENTIAL FEATURES	PERFORMANCE
Qualification for seismic actions	NPD

LEGEND OF SYMBOLS	
d	Diameter of the bolt or threaded part
d ₀	Hole diameter
d _{fix}	Diameter of the hole in the object to be fixed
h _{ef}	Effective anchoring depth
h ₁	Hole depth
h _{min}	Minimum thickness of the concrete support
T _{inst}	Tightening torque
t _{fix}	Fixable thickness
S _{min}	Minimum wheelbase
C _{min}	Minimum distance from the edges
N _{Rk}	Characteristic resistance for pull-out and concrete cone formation for single anchorage
γ ₂	Partial safety coefficient relating to the installation of the anchor
S _{cr,Np}	Center distance to ensure the transmission of the characteristic pull-out load for a single anchorage
C _{cr,Np}	Distance from the edge to ensure transmission of the characteristic pull-out load for a single anchor
S _{cr,N}	Center distance to ensure the transmission of the characteristic load for the formation of the concrete cone for a single anchorage
C _{cr,N}	Distance from the edge to ensure the transmission of the characteristic load for the formation of the concrete cone for a single anchorage
S _{cr,sp}	Center distance to ensure the transmission of the characteristic load for concrete splitting for a single anchorage
C _{cr,sp}	Distance from the edge to ensure the transmission of the characteristic load for concrete splitting for a single anchorage
ψ _{c,ucr}	Increase factor for non-cracked concrete classes
ψ _{c,cr}	Increase factor for cracked concrete classes
k	Factor for concrete edge failure
F	Service load in uncracked concrete (ucr) or cracked concrete (cr)
δ ₀	Short-term displacement under service load in uncracked concrete (ucr) or cracked concrete (cr)
δ _∞	Long-term displacement under service load in uncracked concrete (ucr) or cracked concrete (cr)
NPD	Performance not declared

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 downloaded from our website www.bossong.com.

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 function	Place and date of release	Signature
Andrea Taddei Director General	Grassobbio (Bg) - Italy 29.04.2024	