



E-PLUS

Product for structural applications



Option 1 - Option 7



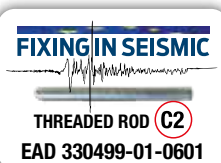
SEISMIC - C2



Rebar Fixing



Post-Installed Rebar



E-PLUS - EPDITALY0558
02.2024 / 02.2029



BCR-585 E-PLUS

Shuttle cartridge

585 ml
cod. 747485



BCR-385 E-PLUS

Shuttle cartridge

385 ml
cod. 747460



STORAGE AND CONSERVATION



CARTRIDGE



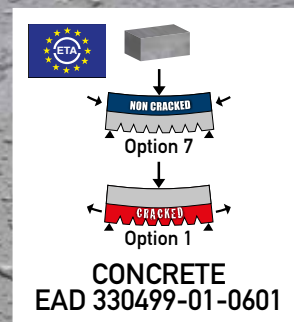
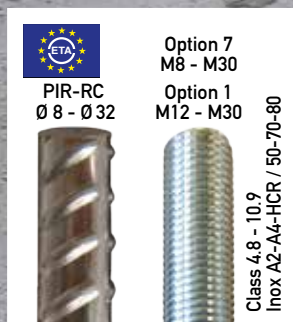
24 585 ml
385 ml

EXPIRY (months)





STRENGTHENING

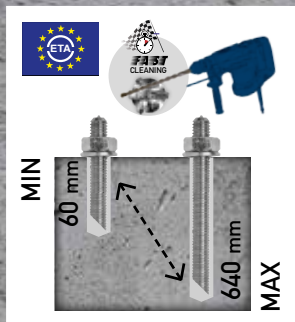


EN. PURE EPOXY BI-COMPONENT CHEMICAL ANCHOR WITHOUT STYRENE.

Product in 3:1 ratio, available in 385 ml and 585 ml cartridges. ETA (European Technical Assessment) qualified product for anchoring in concrete in accordance with EAD 330499-01-0601 and EAD 330087-01-0601 in accordance with the Construction Products Regulation 305/2011. Service Life of 100 years compared to the standard value of 50 years. Ideal for big works and infrastructure. C2 seismic qualification for diameters from M12 to M24. Ideal for structural reinforcement and seismic strengthening. Maximum adhesion performance in non-cracked concrete optimized to achieve high design strength values on the steel side and concrete side. Seismic qualification for post-installed rebar connections for all levels of seismicity for diameters from 12 mm to 32 mm. Static and quasi-static qualification for threaded bars from M8 to M30 and for rebar from 8 to 32 mm. Qualified for both drill and diamond core drilling holes. Qualified installation with hollow drill bit in order to reduce exposure to dust and increase productivity by reducing cleaning times. Fire resistance performance for post-installed rebar connections up to a maximum of R240. Reduced edge distances and spacing to allow even the most difficult installations. Maximum anchoring depth up to twenty times the nominal diameter of the threaded rod. Embedding depth for post-installed rebar connections up to 2500 mm of perforation. Increased fluidity to allow installation in deep holes and in low temperature situations. Thixotropic product, qualified overhead application. It does not pour. Qualified performance for both dry and wet concrete and flooded hole. The hardening reaction of the product also takes place in the presence of water. Certified operating temperature are in the ranges: $-40^{\circ}\text{C} / +40^{\circ}\text{C}$ (long-term max $T^{\circ} = 24^{\circ}\text{C}$), $-40^{\circ}\text{C} / +55^{\circ}\text{C}$ (long-term max $T^{\circ} = 43^{\circ}\text{C}$) and $-40^{\circ}\text{C} / +80^{\circ}\text{C}$ (long-term max $T^{\circ} = 50^{\circ}\text{C}$). Reduced tightening times to increase productivity on site. 24 months of expiry. Application also possible in conditions of concrete temperature from 0 to 40°C . Post-installed rebar connections allowed without increasing the setting depth in both cracked and non-cracked concrete. The product, due to its high adhesion value and the ease of penetration into porosities and hollow areas, allows a secure fixing without expansion and therefore without tension in the base material during installation. The resin and hardener are mixed only during extrusion by passing the product through the special mixer. It does not require premixing. It can also be used as a repair and filling compound. Also suitable for fixing in solid masonry and wood and for consolidation work. Environmental qualifications related to the emission of VOC LEED GOLD.



GREEN LIFE





Product range |

	CODICE > CODE NUMBER	ARTICOLO > ITEM TYPE > ARTIKEL	DESCRIPTION	 Nr.
		E-PLUS		
	747485	BCR 585 E-PLUS	Cartridge of	12
	747460	BCR 385 E-PLUS	Cartridge of	12
	747495	BOX 585 E-PLUS	20 x cartridges, 40 x mixers	1

Additional mixer



CODE CARTRIDGE
000000AX

Setting times



E-PLUS				
01	02	03	04	
				
50 °C	6 min	3 h	5 h	
40 °C	8 min	3 h	5 h	
35 °C	12 min	3 h	5 h	
30 °C	15 min	3 h	5 h	
25 °C	20 min	4 h	10 h	
20 °C	30 min	4 h	12 h	
15 °C	45 min	6 h	18 h	
10 °C	1 h	12 h	24 h	
5 °C	1 h 15'	24 h	48 h	
0 °C	2 h	48 h	96 h	
+5°C				
Temperatura minima del prodotto per l'applicazione				
Minimum product temperature for application				
Température minimal de la cartouche pour l'application				
Min Kartouchetemperatur für die Anwendung				
WITH H₂O X2 CURING TIME				



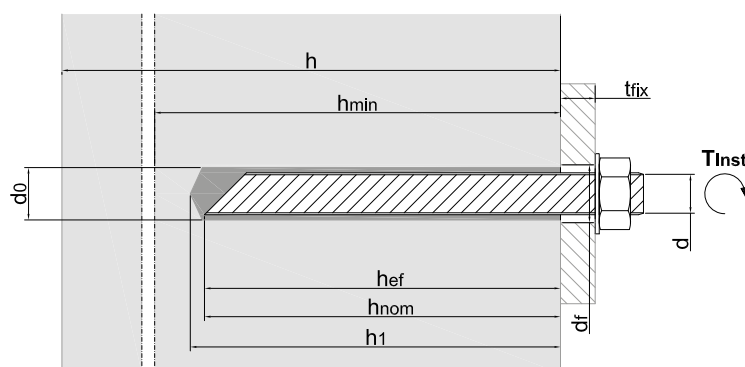
- 01 Base material temperature
- 02 Open time
- 03 Torque time
- 04 Curing time



Installation data |

D	Materiale > Material > Matériel > Material
N	d [mm] Diametro barra > Rod diameter > Diamètre de la barre > Stangedurchmesser
E	Tipologia di barra > Type of rod > Classe de la barre > Stange-Klasse
G	Gabbietta > Plastic sleeve > Tamis > Hülse
L	h _{min} [mm] Spessore minimo del supporto > Minimum thickness of base material Épaisseur minimal du matériel de base > Mindestbauteildicke
	d _o [mm] Diametro foro > Hole diameter > Diamètre du trou > Bohrloch-Durchmesser
	h ₁ [mm] Profondità del foro > Hole depth > Profondeur du trou > Bohrlochtiefe
	h _{nom} [mm] Profondità di inserimento > Embedment depth Profondeur d'insertion > Setztiefe
	h _{ef} [mm] Profondità effettiva ancoraggio > Effective anchorage depth Profondeur effective d'ancrage > Effektive Verankerungstiefe

D	S _{cr} [mm] Interasse caratteristico > Characteristic spacing Entraxe Caractéristique > Charakteristischerachsabstand
N	C _{cr} [mm] Distanza dal bordo caratteristica > Characteristic edge distance Distance du bord caractéristique > Charakteristischerandabstand
E	S _{min} [mm] Interasse minimo > Minimum allowable spacing Entraxe minimale > Minimaler Achsabstand
G	C _{min} [mm] Distanza minima dal bordo > Minimum allowable edge distance Distance du bord minimale > Minimaler Randabstand
L	t _{fix} [mm] Spessore fissabile > Fixture thickness Épaisseur fixable > Anbauteildicke
	d _i [mm] Diametro foro spessore fissabile > Diameter of clearance hole in the fixture Diamètre du trou dans l'épaisseur fixable > Bohrloch-Durchmesser im Anbauteil
	S _w [mm] Chiave > Key > Clef > Schlüsselweite
	T _{inst} [Nm] Coppia di serraggio > Installation torque Couple de serrage > Drehmoment Beim Verankern



> **WARNING:** Before use see this section and the complete procedure of installation reported in the next pages. We assume no liability for the not correct use of the product.



Opzione > Option 1

M12 ... M30

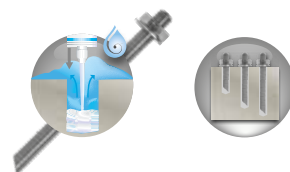
Opzione > Option 7

M8 ... M30



SEISMIC - C2

M12 ... M24



MATERIALE MATERIAL	DIAMETRO BARRA ROD DIAMETER	TIPOLOGIA DI BARRA TYPE OF ROD	SPESSORE MIN. DEL SUPPORTO MIN. THICKNESS BASE MATERIAL			DIAMETRO FORO HOLE DIAMETER	PROFONDITÀ DEL FORO HOLE DEPTH			PROFONDITÀ DI INSERIMENTO EMBEDMENT DEPTH			PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH			INTERASSE CARATTERISTICO CHARACTERISTIC SPACING			DISTANZA DAL BORDO CARATTERISTICA CHARACTERISTIC EDGE DISTANCE		
E-PLUS	d [mm]		h _{min} [mm]			d _o [mm]	h ₁ [mm]			h _{nom} [mm]			h _{ef} [mm]			S _{cr, N} [mm]			C _{cr, N} [mm]		
			min	med	max		min	med	max	min	med	max	min	med	max	min	med	max	min	med	max
M8-M30 Calcestruzzo non fessurato Non cracked Concrete	M8	≥ 5.8 - A4/70	100	110	190	10	65	85	165	60	80	160	60	80	160	180	202	202	90	101	101
	M10	≥ 5.8 - A4/70	100	120	230	12	65	95	205	60	90	200	60	90	200	180	242	242	90	121	121
M12-M30 Calcestruzzo fessurato Cracked Concrete	M12	≥ 5.8 - A4/70	100	140	270	14	75	115	245	70	110	240	70	110	240	210	291	291	105	145	145
	M16	≥ 5.8 - A4/70	116	161	356	18	85	130	325	80	125	320	80	125	320	240	375	388	120	188	194
M12-M24 SEISMIC C2	M20	≥ 5.8 - A4/70	138	218	448	22-24	95	175	405	90	170	400	90	170	400	270	462	462	135	231	231
	M24	≥ 5.8 - A4/70	152	266	536	28	100	215	485	96	210	480	96	210	480	288	554	554	144	277	277
	M27	≥ 5.8 - A4/70	170	300	600	30	115	245	545	110	240	540	110	240	540	330	624	624	165	312	312
	M30	≥ 5.8 - A4/70	190	340	670	35	125	275	605	120	270	600	120	270	600	360	693	693	180	346	346



TECHNICAL DATA SHEET

Tactile Systems



Opzione > Option 1

Opzione > Option 7

M12 ... M30

M8 ... M30



SEISMIC - C2

M12 ... M24

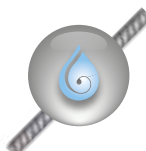


MATERIALE MATERIAL	DIAMETRO BARRA ROD DIAMETER	TIPOLOGIA DI BARRA TYPE OF ROD	INTERASSE MIN. ALLOWABLE SPACING	DISTANZA MIN. DAL BORDO MIN. ALLOWABLE EDGE DISTANCE	SPES. FISSABILE FIXTURE THICKNESS	DIAMETRO FORO SPES. FISSABILE DIAMETER OF CLEARANCE HOLE IN THE FIXTURE	CHIAVE KEY	COPPIA DI SERRAGGIO INSTALLATION TORQUE
E-PLUS	d [mm]		S _{min} [mm]	C _{min} [mm]	t _{fix} [mm]	d _f [mm]	S _w [mm]	T _{inst} [Nm]
M8-M30 Calcestruzzo non fessurato Non cracked Concrete	M8	≥ 5.8 - A4/70	40	35	min ÷ max	9	13	10
M12-M30 Calcestruzzo fessurato Cracked Concrete	M10	≥ 5.8 - A4/70	50	40	0 ÷ 1500	12	17	20
	M12	≥ 5.8 - A4/70	60	45	0 ÷ 1500	14	19	40
	M16	≥ 5.8 - A4/70	75	50	0 ÷ 1500	18	24	80
M12-M24 SEISMIC C2	M20	≥ 5.8 - A4/70	90	55	0 ÷ 1500	22	30	130
	M24	≥ 5.8 - A4/70	115	60	0 ÷ 1500	26	36	200
	M27	≥ 5.8 - A4/70	120	75	0 ÷ 1500	29	41	270
	M30	≥ 5.8 - A4/70	140	80	0 ÷ 1500	33	46	300

> To avoid splitting failure, the thickness of the concrete member shall be $h \geq 2h_{ef}$



Ø 8 ... 32 mm



MATERIALE MATERIAL	DIAMETRO BARRA ROD DIAMETER	TIPOLOGIA DI BARRA TYPE OF ROD	DIAMETRO FORO HOLE DIAMETER	LUNGHEZZA DI ANCORAGGIO ANCHORAGE LENGTH (**)			INTERASSE MIN. MIN. ALLOWABLE SPACING	DISTANZA MIN. DAL BORDO MIN. ALLOWABLE EDGE DISTANCE		
E-PLUS	d [mm]		d ₀ [mm]	l _v [mm]			S _{min} [mm]	C _{min} [mm]		
C20/25 Concrete				MIN lb	MIN lo	MAX lb		MIN lb	MIN lo	MAX lb
	Ø 8	Rebar (*)	10-12	115	200	700	40	37	42	72
	Ø 10	Rebar (*)	12-14	145	200	900	40	39	42	84
	Ø 12	Rebar (*)	14-16	170	200	1100	48	40	42	96
	Ø 14	Rebar (*)	18	200	210	1300	56	42	43	108
	Ø 16	Rebar (*)	20	230	240	1400	64	44	45	114
	Ø 20	Rebar (*)	25	285	300	1800	80	47	48	138
	Ø 25	Rebar (*)	30-32	355	375	2200	100	61	63	172
	Ø 28	Rebar (*)	35	400	420	2500	112	64	65	190
	Ø 32	Rebar (*)	40	455	480	2500	128	67	69	190

(*) Rebar = B450C; BST 500

Anchorage lengths according to EC2 and TR023.

lb = anchorage length

lo = overlap joint length



Rebar Fixing



Ø 8 ... 32 mm

MATERIALE MATERIAL	DIAMETRO BARRA ROD DIAMETER	TIPOLOGIA DI BARRA TYPE OF ROD	SPESORE MIN. DEL SUPPORTO MIN. THICKNESS BASE MATERIAL	DIAMETRO FORO HOLE DIAMETER	PROFONDITÀ DEL FORO HOLE DEPTH	PROFONDITÀ DI INSERIMENTO EMBEDMENT DEPTH	PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH	INTERASSE CARATTERISTICO CHARACTERISTIC SPACING	DISTANZA DAL BORDO CARATTERISTICA CHARACTERISTIC EDGE DISTANCE	INTERASSE MIN. ALLOWABLE SPACING	DISTANZA MIN. DAL BORDO MIN. ALLOWABLE EDGE DISTANCE
E-PLUS	d [mm]		h _{min} [mm]	d ₀ [mm]	h ₁ [mm]	h _{nom} [mm]	h _{eff} [mm]	S _{cr} [mm]	C _{cr} [mm]	S _{min} [mm]	C _{min} [mm]
Calcestruzzo non fessurato Non cracked Concrete	Ø 8	Rebar (*)	min med max		min med max	min med max	min med max	min med max	min med max	min med max	min med max
	Ø 10	Rebar (*)	100 110 190	10-12	65 85 165	60 80 160	60 80 160	120 160 320	60 80 160	40	40
	Ø 12	Rebar (*)	100 120 230	12-14	75 95 205	70 90 200	70 90 200	140 180 400	70 90 200	50	45
	Ø 14	Rebar (*)	102 142 275	14-16	85 115 245	80 110 240	80 110 240	160 220 480	80 110 240	60	45
	Ø 16	Rebar (*)	116 161 316	18	85 130 285	80 125 280	80 125 280	160 250 560	80 125 280	70	50
	Ø 20	Rebar (*)	120 180 360	20	85 145 325	100 140 320	100 140 320	200 280 640	100 140 320	80	50
	Ø 22	Rebar (*)	140 220 450	25	125 175 405	120 170 400	120 170 400	240 340 800	120 170 400	100	65
	Ø 25	Rebar (*)	172 252 492	26	125 205 445	120 200 440	120 200 440	240 400 880	120 200 440	105	65
	Ø 28	Rebar (*)	210 270 560	30-32	155 215 505	150 210 500	100 210 500	200 420 1000	100 210 500	125	70
	Ø 30	Rebar (*)	250 340 630	35	117 275 565	180 270 560	150 270 560	300 540 1120	150 270 560	140	75
	Ø 32	Rebar (*)	250 340 670	35	185 275 605	180 270 600	180 270 600	360 540 1200	180 270 600	150	80
	Ø 32	Rebar (*)	208 380 720	40	205 305 645	200 300 640	200 300 640	400 600 1280	128 300 640	150	80

(*) Rebar = B450C; BST 500

> Parametri d'installazione validi per applicazioni in accordo alla teoria dell'ancoraggio > Installation parameters suitable for application according to the anchors theory
> Paramètres d'installation en conformité avec la théorie de l'ancrage > Installationsparameter in Übereinstimmung mit der Verankerungstheorie

MATERIALE MATERIAL	DIAMETRO BARRA ROD DIAMETER	TIPOLOGIA DI BARRA TYPE OF ROD	SPESORE MIN. DEL SUPPORTO MIN. THICKNESS BASE MATERIAL	DIAMETRO FORO HOLE DIAMETER	PROFONDITÀ DEL FORO HOLE DEPTH	PROFONDITÀ DI INSERIMENTO EMBEDMENT DEPTH	PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH	INTERASSE CARATTERISTICO CHARACTERISTIC SPACING	DISTANZA DAL BORDO CARATTERISTICA CHARACTERISTIC EDGE DISTANCE	INTERASSE MIN. ALLOWABLE SPACING	DISTANZA MIN. DAL BORDO MIN. ALLOWABLE EDGE DISTANCE	SPES. FISSABILE MAX FIXTURE THICKNESS	DIAMETRO FORO SPES. FISSABILE DIAMETER OF CLEARANCE HOLE IN THE FIXTURE	CHIAVE KEY	COPPIA DI SERRAGGIO INSTALLATION TORQUE
E-PLUS	d [mm]		h _{min} [mm]	d ₀ [mm]	h ₁ [mm]	h _{nom} [mm]	h _{eff} [mm]	S _{cr} [mm]	C _{cr} [mm]	S _{min} [mm]	C _{min} [mm]	t _{fix} [mm]	d _r [mm]	S _w [mm]	T _{inst} [Nm]
Mattone pieno Solid Brick Brique pleine Vollmauerwerk	M8	≥ 4.6 A2-70 A4-70	200	10	85	80	80	160	200	100	100	10	9	13	7
	M10	≥ 4.6 A2-70 A4-70	250	12	90	85	85	200	200	100	100	20	12	17	15
	M12	≥ 4.6 A2-70 A4-70	300	14	100	95	95	240	200	100	100	30	14	19	25
	M16	≥ 4.6 A2-70 A4-70	350	18	130	125	125	320	200	100	100	35	18	24	30

MATERIALE MATERIAL	DIAMETRO BARRA ROD DIAMETER	TIPOLOGIA DI BARRA TYPE OF ROD	SPESORE MIN. DEL SUPPORTO MIN. THICKNESS BASE MATERIAL	DIAMETRO FORO HOLE DIAMETER	PROFONDITÀ DEL FORO HOLE DEPTH	PROFONDITÀ DI INSERIMENTO EMBEDMENT DEPTH	PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH	INTERASSE CARATTERISTICO CHARACTERISTIC SPACING	DISTANZA DAL BORDO CARATTERISTICA CHARACTERISTIC EDGE DISTANCE	INTERASSE MIN. ALLOWABLE SPACING	DISTANZA MIN. DAL BORDO MIN. ALLOWABLE EDGE DISTANCE	SPES. FISSABILE MAX FIXTURE THICKNESS	DIAMETRO FORO SPES. FISSABILE DIAMETER OF CLEARANCE HOLE IN THE FIXTURE	CHIAVE KEY	COPPIA DI SERRAGGIO INSTALLATION TORQUE
E-PLUS	d [mm]		h _{min} [mm]	d ₀ [mm]	h ₁ [mm]	h _{nom} [mm]	h _{eff} [mm]	S _{cr} [mm]	C _{cr} [mm]	S _{min} [mm]	C _{min} [mm]	t _{fix} [mm]	d _r [mm]	S _w [mm]	T _{inst} [Nm]
Legno lamellare Laminated Timber Holz	M8	≥ 4.6 A2-70 A4-70	160	10	85	80	80	100	80	50	50	10	9	13	7
	M10	≥ 4.6 A2-70 A4-70	200	12	105	100	100	125	100	50	50	20	12	17	15
	M12	≥ 4.6 A2-70 A4-70	240	14	125	120	120	150	120	60	60	30	14	19	25
	M16	≥ 4.6 A2-70 A4-70	320	18	165	160	160	200	160	80	80	35	18	24	30



TECHNICAL DATA SHEET

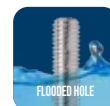
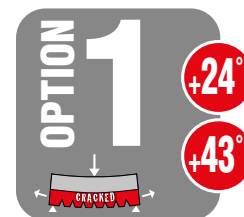


Load data

LOADING DATA	N_{Rk} [kN]	Characteristic tension load
	V_{Rk} [kN]	Characteristic shear load
	N_{Ed} [kN]	Design tensile load
	V_{Ed} [kN]	Design shear load
	N_{rec} [kN]	Admissible tensile load
	V_{rec} [kN]	Admissible shear load

> Loads for single anchor with no influence of spacing and edge distance and with $h \geq 2h_{ef}$ > 1kN = 100 Kg
> $\psi_{sEd} = 1,0$

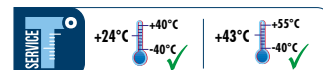
> Shear directed away from the edge > General safety factor included > Load increasing safety coefficient used = 1,4



With flooded hole, reduction of the recommended load of 20%

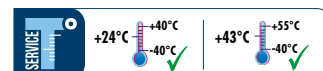
MIN Dati di carico con profondità efficace ancoraggio MINIMA > Load data with MINIMUM effective anchorage depth
Données de charge avec profondeur efficace d'ancrage MINIMALE > Lastdaten mit MINIMALER effektiven Verankerungstiefe

E-PLUS MATERIAL	BARRA ROD	DIAMETRO BARRA ROD DIAMETER	PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH	CARICO CARATTERISTICO A TRAZIONE CHARACTERISTIC TENSILE LOAD	CARICO CARATTERISTICO A TAGLIO CHARACTERISTIC SHEAR LOAD	CARICO DI PROGETTO DI TRAZIONE DESIGN TENSILE LOAD	CARICO DI PROGETTO DI TAGLIO DESIGN SHEAR LOAD	CARICO AMMISSIBILE A TRAZIONE ADMISSIBLE TENSILE LOAD	CARICO AMMISSIBILE A TAGLIO ADMISSIBLE SHEAR LOAD
				N_{Rk} [kN]	V_{Rk} [kN]	N_{Ed} [kN]	V_{Ed} [kN]	N_{rec} [kN]	V_{rec} [kN]
C20/25 Calcestruzzo fessurato Cracked Concrete Beton fissuré Gerissener Beton	≥ 5.8	M 12	70	18,5	34,0	12,3	24,6	8,8	17,6
	≥ 5.8	M 16	80	24,6	49,3	16,4	32,9	11,7	23,5
	≥ 5.8	M 20	90	29,4	58,8	19,6	39,2	14,0	28,0
	≥ 5.8	M 24	96	32,4	64,8	21,6	43,2	15,4	30,8
	≥ 5.8	M 27	110	39,7	79,5	26,5	53,0	18,9	37,8
	≥ 5.8	M 30	120	45,3	90,5	30,2	60,4	21,6	43,1



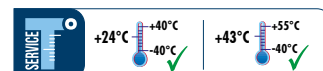
MED Load data with MEDIUM effective anchorage depth

E-PLUS MATERIAL	BARRA ROD	DIAMETRO BARRA ROD DIAMETER	PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH	CARICO CARATTERISTICO A TRAZIONE CHARACTERISTIC TENSILE LOAD	CARICO CARATTERISTICO A TAGLIO CHARACTERISTIC SHEAR LOAD	CARICO DI PROGETTO DI TRAZIONE DESIGN TENSILE LOAD	CARICO DI PROGETTO DI TAGLIO DESIGN SHEAR LOAD	CARICO AMMISSIBILE A TRAZIONE ADMISSIBLE TENSILE LOAD	CARICO AMMISSIBILE A TAGLIO ADMISSIBLE SHEAR LOAD
				N_{Rk} [kN]	V_{Rk} [kN]	N_{Ed} [kN]	V_{Ed} [kN]	N_{rec} [kN]	V_{rec} [kN]
C20/25 Cracked Concrete	8.8	M 12	110	32,9	34,0	19,3	27,2	13,8	19,4
	8.8	M 16	125	47,1	63,0	31,4	50,4	22,4	36,0
	8.8	M 20	170	74,7	98,0	49,8	78,4	35,6	56,0
	8.8	M 24	210	104,8	141,0	69,9	112,8	49,9	80,6
	8.8	M 27	240	128,0	184,0	85,4	147,2	61,0	105,1
	8.8	M 30	270	152,8	224,0	101,8	179,2	72,7	128,0



MAX Load data with MAXIMUM effective anchorage depth

E-PLUS MATERIAL	BARRA ROD	DIAMETRO BARRA ROD DIAMETER	PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH	CARICO CARATTERISTICO A TRAZIONE CHARACTERISTIC TENSILE LOAD	CARICO CARATTERISTICO A TAGLIO CHARACTERISTIC SHEAR LOAD	CARICO DI PROGETTO DI TRAZIONE DESIGN TENSILE LOAD	CARICO DI PROGETTO DI TAGLIO DESIGN SHEAR LOAD	CARICO AMMISSIBILE A TRAZIONE ADMISSIBLE TENSILE LOAD	CARICO AMMISSIBILE A TAGLIO ADMISSIBLE SHEAR LOAD
				N_{Rk} [kN]	V_{Rk} [kN]	N_{Ed} [kN]	V_{Ed} [kN]	N_{rec} [kN]	V_{rec} [kN]
C20/25 Cracked Concrete	8.8	M 12	240	63,3	34,0	42,2	27,2	30,1	19,4
	8.8	M 16	320	120,5	63,0	80,3	50,4	57,4	36,0
	8.8	M 20	400	175,8	98,0	117,2	78,4	83,7	56,0
	8.8	M 24	480	289,2	141,0	192,8	112,8	137,7	80,6
	8.8	M 27	540	320,3	184,0	213,5	147,2	152,5	105,1
	8.8	M 30	600	367,2	224,0	244,8	179,9	174,9	128,0



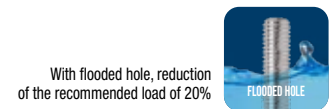
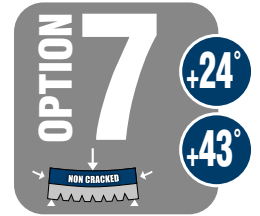


Load data |

LOADING DATA	N_{rk} [kN]	Characteristic tension load
	V_{rk} [kN]	Characteristic shear load
	N_{rd} [kN]	Design tensile load
	V_{rd} [kN]	Design shear load
	N_{rec} [kN]	Admissible tensile load
	V_{rec} [kN]	Admissible shear load

> Loads for single anchor with no influence of spacing and edge distance and with $h_{ef} \geq 2h_{\phi}$ > $1kN = 100 Kg$
> $\psi_{susc} = 1,0$

> Shear directed away from the edge > General safety factor included > Load increasing safety coefficient used = 1,4



MIN Load data with MINIMUM effective anchorage depth

 MATERIALE MATERIAL	BARRA ROD	DIAMETRO BARRA ROD DIAMETER	PROFONDITÀ EFF. ANCORAGGIO	CARICO CARATTERISTICO A	CARICO CARATTERISTICO A	CARICO DI PROGETTO	CARICO DI PROGETTO	CARICO AMMISSIBILE	CARICO AMMISSIBILE
			EFFECTIVE ANCHORAGE DEPTH	TRAZIONE CHARACTERISTIC TENSILE LOAD	TAGLIO CHARACTERISTIC SHEAR LOAD	DI TRAZIONE DESIGN TENSILE LOAD	DI TAGLIO DESIGN SHEAR LOAD	A TRAZIONE ADMISSIBLE TENSILE LOAD	A TAGLIO ADMISSIBLE SHEAR LOAD
		d [mm]	h_{ef} MIN [mm]	N_{Rk} [kN]	V_{Rk} [kN]	N_{Rd} [kN]	V_{Rd} [kN]	N_{Rec} [kN]	V_{Rec} [kN]
C20/25 Non cracked Concrete	≥ 5.8	M 8	60	19,0	9,0	12,7	7,2	9,0	5,1
	≥ 5.8	M 10	60	22,9	14,0	15,2	11,2	10,9	8,0
	≥ 5.8	M 12	70	28,8	21,0	19,2	16,8	13,7	12,0
	≥ 5.8	M 16	80	35,2	39,0	23,5	31,2	16,8	22,3
	≥ 5.8	M 20	90	42,0	61,0	28,0	48,8	20,0	34,9
	≥ 5.8	M 24	96	46,3	88,0	30,8	61,7	22,0	44,1
	≥ 5.8	M 27	110	56,8	113,5	37,8	75,7	27,0	54,1
	≥ 5.8	M 30	120	64,7	129,3	43,1	86,2	30,8	61,6

MED MEDIA > Load data with MEDIUM effective anchorage depth

 MATERIALE MATERIAL	BARRA ROD	DIAMETRO BARRA ROD DIAMETER	PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH	CARICO CARATTERISTICO A TRAZIONE CHARACTERISTIC TENSILE LOAD	CARICO CARATTERISTICO A TAGLIO CHARACTERISTIC SHEAR LOAD	CARICO DI PROGETTO DI TRAZIONE DESIGN TENSILE LOAD	CARICO DI PROGETTO DI TAGLIO DESIGN SHEAR LOAD	CARICO AMMISSIBILE A TRAZIONE ADMISSIBLE TENSILE LOAD	CARICO AMMISSIBILE A TAGLIO ADMISSIBLE SHEAR LOAD
		d [mm]	$h_{ef\ MED}$ [mm]	N_{Rk} [kN]	V_{Rk} [kN]	N_{Rd} [kN]	V_{Rd} [kN]	N_{Rec} [kN]	V_{Rec} [kN]
 C20/25 Non cracked Concrete	8.8	M 8	80	29,2	15,0	19,5	12,0	13,9	8,6
	8.8	M 10	90	42,0	23,0	28,0	18,4	20,0	13,1
	8.8	M 12	110	56,8	34,0	37,8	27,2	27,0	19,4
	8.8	M 16	125	68,8	63,0	45,8	50,4	32,7	36,0
	8.8	M 20	170	109,0	98,0	72,7	78,4	51,9	56,0
	8.8	M 24	210	149,7	141,0	99,8	112,8	71,3	80,6
	8.8	M 27	240	182,9	184,0	121,9	147,2	87,1	105,1
	8.8	M 30	270	218,2	224,0	145,5	179,2	103,9	128,0

MAX Load data with MAXIMUM effective anchorage depth

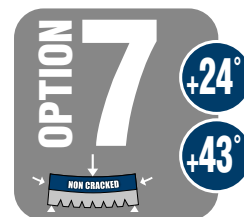
 MATERIALE MATERIAL		BARRA ROD	DIAMETRO BARRA ROD DIAMETER	PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH	CARICO CARATTERISTICO A TRAZIONE CHARACTERISTIC TENSILE LOAD	CARICO CARATTERISTICO A TAGLIO CHARACTERISTIC SHEAR LOAD	CARICO DI PROGETTO DI TRAZIONE DESIGN TENSILE LOAD	CARICO DI PROGETTO DI TAGLIO DESIGN SHEAR LOAD	CARICO AMMISSIBILE A TRAZIONE ADMISSIBLE TENSILE LOAD	CARICO AMMISSIBILE A TAGLIO ADMISSIBLE SHEAR LOAD
			d [mm]	h _{ef} MAX [mm]	N _{rk} [kN]	V _{rk} [kN]	N _{rd} [kN]	V _{rd} [kN]	N _{rec} [kN]	V _{rec} [kN]
 C20/25 Non cracked Concrete	8.8 	8.8	M 8	160	29,2	15,0	19,5	12,0	13,9	8,6
		8.8	M 10	200	46,4	23,0	30,9	18,4	22,1	13,1
		8.8	M 12	240	67,4	34,0	44,9	27,2	32,1	19,4
		8.8	M 16	320	125,0	63,0	83,3	50,4	59,5	36,0
		8.8	M 20	400	203,0	98,0	135,3	78,4	96,7	56,0
		8.8	M 24	480	293,0	141,0	195,3	112,8	139,5	80,6
		8.8	M 27	540	381,0	184,0	254,0	147,2	181,4	105,1
		8.8	M 30	600	466,0	224,0	310,7	179,2	221,9	128,0



TECHNICAL DATA SHEET



Load data



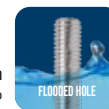
- > Applicazioni in accordo alla teoria dell'ancoraggio
- > Application according to the anchors theory
- > Application en conformité avec la théorie de l'ancrage
- > Anwendung in Übereinstimmung mit der Verankerungstheorie

LOAD DATA	N_{Rk} [kN]	Characteristic tension load
	V_{Rk} [kN]	Characteristic shear load
	N_{Ed} [kN]	Design tensile load
	V_{Ed} [kN]	Design shear load
	N_{rec} [kN]	Admissible tensile load
	V_{rec} [kN]	Admissible shear load

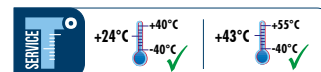
> Loads for single anchor with no influence of spacing and edge distance and with $h \geq 2h_{ef}$ > $1kN = 100 Kg$
> $\psi_{sEd} = 1,0$

> Shear directed away from the edge > General safety factor included > Load increasing safety coefficient used = 1,4

With flooded hole, reduction of the recommended load of 20%

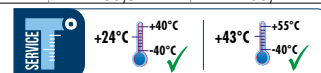


MIN Load data with MINIMUM effective anchorage depth



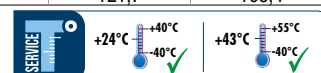
E-PLUS MATERIALE MATERIAL	DIAMETRO BARRA ROD DIAMETER	PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH	CARICO CARATTERISTICO A TRAZIONE CHARACTERISTIC TENSILE LOAD	CARICO CARATTERISTICO A TAGLIO CHARACTERISTIC SHEAR LOAD	CARICO DI PROGETTO DI TRAZIONE DESIGN TENSILE LOAD	CARICO DI PROGETTO DI TAGLIO DESIGN SHEAR LOAD	CARICO AMMISSIBILE A TRAZIONE ADMISSIBLE TENSILE LOAD	CARICO AMMISSIBILE A TAGLIO ADMISSIBLE SHEAR LOAD
			N_{Rk} [kN]	V_{Rk} [kN]	N_{Ed} [kN]	V_{Ed} [kN]	N_{rec} [kN]	V_{rec} [kN]
C20/25 Non cracked Concrete Rebar B450C BST500	Ø8	60	22,6	13,5	16,2	9,0	11,5	6,4
	Ø10	70	28,8	21,3	19,2	14,2	13,7	10,2
	Ø12	80	35,2	30,5	23,5	20,3	16,8	14,5
	Ø14	80	35,2	41,6	23,5	27,7	16,8	19,8
	Ø16	100	49,2	54,3	32,8	36,2	23,4	25,8
	Ø20	120	64,7	84,8	43,1	56,5	30,8	40,4
	Ø22	120	64,7	102,6	43,1	68,4	30,8	48,9
	Ø25	150	90,4	132,6	60,2	88,4	43,0	63,1
	Ø28	180	118,8	166,3	79,2	110,9	56,6	79,2
	Ø30	180	118,8	190,9	79,2	127,3	56,6	90,9
	Ø32	200	139,1	217,1	92,8	144,7	66,3	103,4

MED Load data with MEDIUM effective anchorage depth



E-PLUS MATERIALE MATERIAL	DIAMETRO BARRA ROD DIAMETER	PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH	CARICO CARATTERISTICO A TRAZIONE CHARACTERISTIC TENSILE LOAD	CARICO CARATTERISTICO A TAGLIO CHARACTERISTIC SHEAR LOAD	CARICO DI PROGETTO DI TRAZIONE DESIGN TENSILE LOAD	CARICO DI PROGETTO DI TAGLIO DESIGN SHEAR LOAD	CARICO AMMISSIBILE A TRAZIONE ADMISSIBLE TENSILE LOAD	CARICO AMMISSIBILE A TAGLIO ADMISSIBLE SHEAR LOAD
			N_{Rk} [kN]	V_{Rk} [kN]	N_{Ed} [kN]	V_{Ed} [kN]	N_{rec} [kN]	V_{rec} [kN]
C20/25 Non cracked Concrete Rebar B450C BST500	Ø8	80	27,1	13,5	19,4	9,0	13,8	6,4
	Ø10	90	42,0	21,3	28,0	14,2	20,0	10,2
	Ø12	110	56,8	30,5	37,8	20,3	27,0	14,5
	Ø14	125	68,8	41,6	45,8	27,7	32,7	19,8
	Ø16	125	68,8	54,3	45,8	36,2	32,7	25,8
	Ø20	170	109,0	84,8	72,7	56,5	51,9	40,4
	Ø22	200	139,1	102,6	92,8	68,4	66,3	48,9
	Ø25	210	149,7	132,6	99,8	88,4	71,3	63,1
	Ø28	270	218,2	166,3	145,5	110,9	103,9	79,2
	Ø30	270	218,2	190,9	145,5	127,3	103,9	90,9
	Ø32	300	255,6	217,1	170,4	144,7	121,7	103,4

MAX Load data with MAXIMUM effective anchorage depth



E-PLUS MATERIALE MATERIAL	DIAMETRO BARRA ROD DIAMETER	PROFONDITÀ EFF. ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH	CARICO CARATTERISTICO A TRAZIONE CHARACTERISTIC TENSILE LOAD	CARICO CARATTERISTICO A TAGLIO CHARACTERISTIC SHEAR LOAD	CARICO DI PROGETTO DI TRAZIONE DESIGN TENSILE LOAD	CARICO DI PROGETTO DI TAGLIO DESIGN SHEAR LOAD	CARICO AMMISSIBILE A TRAZIONE ADMISSIBLE TENSILE LOAD	CARICO AMMISSIBILE A TAGLIO ADMISSIBLE SHEAR LOAD
			N_{Rk} [kN]	V_{Rk} [kN]	N_{Ed} [kN]	V_{Ed} [kN]	N_{rec} [kN]	V_{rec} [kN]
C20/25 Non cracked Concrete Rebar B450C BST500	Ø8	160	27,1	13,5	19,4	9,0	13,8	6,4
	Ø10	200	42,2	21,3	28,3	14,2	20,2	10,2
	Ø12	240	61,1	30,5	40,7	20,3	29,1	14,5
	Ø14	280	83,1	41,6	55,4	27,7	39,6	19,8
	Ø16	320	108,6	54,3	72,4	36,2	51,7	25,8
	Ø20	400	169,6	84,8	113,1	56,5	80,8	40,4
	Ø22	440	205,3	102,6	136,8	68,4	97,7	48,9
	Ø25	500	265,1	132,6	176,7	88,4	126,2	63,1
	Ø28	560	332,5	166,3	221,7	110,9	158,3	79,2
	Ø30	600	381,7	190,9	254,5	127,3	181,8	90,9
	Ø32	640	434,3	217,1	289,5	144,7	206,8	103,4

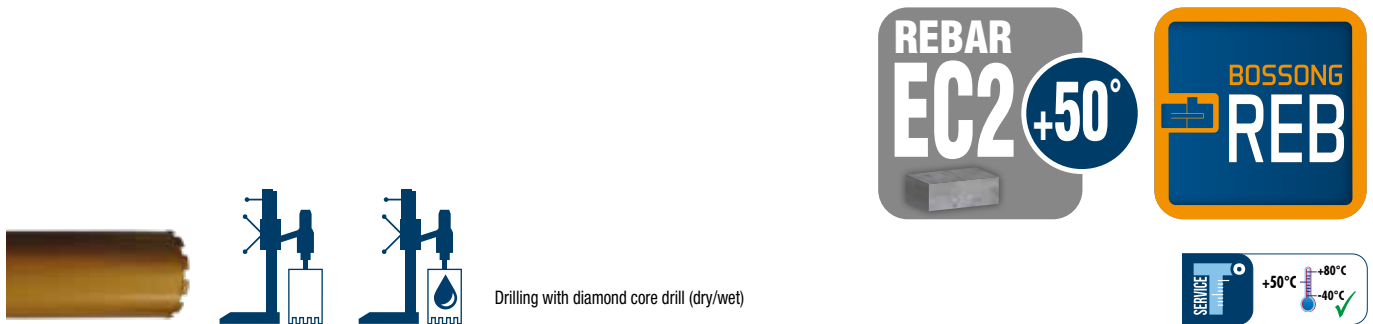


POST-INSTALLED REBAR CONNECTIONS



	MATERIAL	TYPE OF ROD	ROD DIAMETER	BOND RESISTANCE							
				d [mm]	C 12/15	C 16/20	C 20/25	C 25/30	C 30/37	C 35/45	C 40/50
Concrete   EAD 330087-01-0601 ETA - 22/0468  (*) Rebar = B450C; BST 500	Rebar (*)	Ø 8	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3
	Rebar (*)	Ø 10	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3
	Rebar (*)	Ø 12	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3
	Rebar (*)	Ø 14	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3
	Rebar (*)	Ø 16	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3
	Rebar (*)	Ø 20	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3
	Rebar (*)	Ø 22	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3
	Rebar (*)	Ø 24-26	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3
	Rebar (*)	Ø 28	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3
	Rebar (*)	Ø 30	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3
	Rebar (*)	Ø 32	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,0

Design value of bond strength fbd suitable for all anchorage lengths



		MATERIALE MATERIAL	TIPOLOGIA DI BARRA TYPE OF ROD	DIAMETRO BARRA ROD DIAMETER	TENSIONE DI ADERENZA fbd [N/mm²] > BOND RESISTANCE fbd [N/mm²] Buone condizioni di aderenza > Good bond condition								
				d [mm]	C 12/15	C 16/20	C 20/25	C 25/30	C 30/37	C 35/45	C 40/50	C 45/55	C 50/60
Concrete 		Rebar (*)	Ø 8	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3	
		Rebar (*)	Ø 10	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3	
		Rebar (*)	Ø 12	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3	
		Rebar (*)	Ø 14	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3	
		Rebar (*)	Ø 16	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3	
		Rebar (*)	Ø 20	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3	
		Rebar (*)	Ø 22	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3	
		Rebar (*)	Ø 24-26	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3	
		Rebar (*)	Ø 28	1,6	2,0	2,3	2,7	3,0	3,4	3,7	3,7	3,7	
		Rebar (*)	Ø 30	1,6	2,0	2,3	2,7	3,0	3,4	3,4	3,4	3,4	
		Rebar (*)	Ø 32	1,6	2,0	2,3	2,7	3,0	3,0	3,0	3,0	3,0	



EAD 330087-01-0601
ETA - 22/0468



(*) Rebar = B450C; BST 500

Design value of bond strength fbd suitable for all anchorage lengths



**MASONRY
& WOOD**

+24°

An icon for the 'Masonry & Wood' category. It features a 3D rendering of a red brick and a piece of light-colored wood, positioned to the left of a dark blue circle containing the white text '+24°'. The entire icon is set against a light gray background with rounded corners.

> Loads for single anchor with no influence of spacing and edge distance and with $h \geq 2h_{ef}$ $> 1kN = 100 Kg$

> Shear directed away from the edge

> General safety factor included

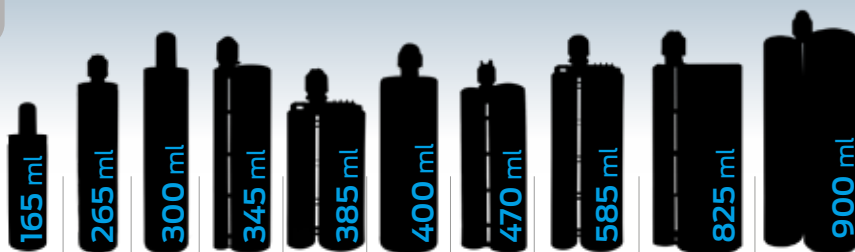
> Load increasing safety coefficient used = 1,4

MATERIALE MATERIAL	TIPOLOGIA DI BARRA TYPE OF ROD	DIAMETRO DI BARRA ROD DIAMETER	CARICO ULTIMO MEDIO A TRAZIONE ULTIMATE TENSION LOAD	CARICO ULTIMO MEDIO A TAGLIO ULTIMATE SHEAR LOAD	CARICO AMMISSIBILE A TRAZIONE ADMISSIBLE TENSILE LOAD	CARICO AMMISSIBILE A TAGLIO ADMISSIBLE SHEAR LOAD
		d [mm]	N _{Rum} [kN]	V _{Rum} [kN]	N _{rec} [kN]	V _{rec} [kN]
Solid Brick  ≥ 4.6 / A2-70 / A4-70 	> 4.6 A2-70 A4 -70	M8 - Ø8			2,0	3,0
	> 4.6 A2-70 A4 -70	M10 - Ø10			2,6	3,4
	> 4.6 A2-70 A4 -70	M12 - Ø12			2,8	3,9
	> 4.6 A2-70 A4 -70	M16 - Ø16			4,0	4,2
Laminated Timber  ≥ 4.6 / A2-70 / A4-70 	> 4.6 A2-70 A4 -70 Rebar (*)	M8 - Ø8	> Recommended loads for applications on base materials with medium strength characteristics. For different masonry and/or wood base materials, load values must be obtained with in situ tests.		3,2	> For shear loads refer to CNR-DT 206/2007 (7.10.2.3)
	> 4.6 A2-70 A4 -70 Rebar (*)	M10 - Ø10			4,2	
	> 4.6 A2-70 A4 -70 Rebar (*)	M12 - Ø12			6,1	
	> 4.6 A2-70 A4 -70 Rebar (*)	M16 - Ø16			10,7	



Nr. FIXINGS

NUMERO FISSAGGI | NUMBER OF FIXINGS
NOMBRE DE FIXATIONS | ANZAHL DER BEFESTIGUNGEN



	DIAMETRO BARRA ROD DIAMETER DIAMÈTRE DE LA BARRE STANGEDURCHMESSER	DIAMETRO FORO HOLE DIAMETER DIAMÈTRE DU TROU BOHRLOCH-DURCHMESSER	PROFONDITÀ EFFETTIVA ANCORAGGIO EFFECTIVE ANCHORAGE DEPTH PROFONDEUR EFFECTIVE D'ANCRAGE EFFEKTIVE VERANKERUNGSTIEFE	165 n	265 n	300 n	345 n	385 n	400 n	470 n	585 n	825 n	900 n
	d [mm]	d ₀ [mm]	h _{ef} [mm]	Numero di fissaggi per cartuccia > Numebr of fixing per cartridge > Nombre de fixations por cartouche > Anzahl der Befestigungen fur kartusche									
FISSAGGI NEI MATERIALI PIENI > FIXINGS IN SOLID MATERIALS > FIXATIONS DANS MATERIAUX PLEINS > BEFESTIGUNGEN IN VOLLSTEINEN													
	M8	10	80	± 31,0	± 50,0	± 57,0	± 65,5	± 73,0	± 75,5	± 89,0	± 110,5	± 156,0	± 170,5
	M10	12	90	± 21,5	± 34,0	± 38,5	± 44,5	± 49,5	± 51,5	± 60,5	± 75,5	± 106,5	± 116,0
	M12	14	110	± 14,0	± 22,5	± 25,5	± 29,5	± 33,0	± 34,0	± 40,0	± 50,0	± 70,0	± 76,5
	M14	16	115	± 11,0	± 17,5	± 20,0	± 23,0	± 25,5	± 26,5	± 31,0	± 39,0	± 55,0	± 60,0
	M16	18	125	± 8,5	± 14,0	± 16,0	± 18,5	± 20,5	± 21,0	± 25,0	± 31,0	± 43,5	± 47,5
	M18	20	150	± 6,0	± 9,5	± 11,0	± 12,5	± 14,0	± 14,5	± 17,5	± 21,5	± 30,5	± 33,0
	M20	24	170	± 3,0	± 5,0	± 5,5	± 6,5	± 7,0	± 7,5	± 9,0	± 11,0	± 15,5	± 17,0
	M22	26	190	± 2,5	± 4,0	± 4,5	± 5,5	± 6,0	± 6,0	± 7,0	± 9,0	± 12,5	± 14,0
	M24	28	210	± 2,0	± 3,0	± 3,5	± 4,0	± 4,5	± 5,0	± 5,5	± 7,0	± 10,0	± 11,0
	M27	30	240	± 2,0	± 3,0	± 3,5	± 4,0	± 4,5	± 4,5	± 5,5	± 6,5	± 9,5	± 10,0
	M30	35	270	± 1,0	± 1,5	± 2,0	± 2,0	± 2,5	± 2,5	± 3,0	± 3,5	± 5,0	± 5,5
	M33	37	300	± 1,0	± 1,5	± 2,0	± 2,0	± 2,5	± 2,5	± 3,0	± 3,5	± 5,0	± 5,5
M36	40	330	± 1,0	± 1,0	± 1,5	± 1,5	± 2,0	± 2,0	± 2,0	± 3,0	± 4,0	± 4,0	
M39	42	360	± 1,0	± 1,0	± 1,5	± 1,5	± 2,0	± 2,0	± 2,0	± 2,5	± 4,0	± 4,0	
FISSAGGI NEI MATERIALI PIENI > FIXINGS IN SOLID MATERIALS > FIXATIONS DANS MATERIAUX PLEINS > BEFESTIGUNGEN IN VOLLSTEINEN													
	Ø8	12	80	± 19,5	± 31,0	± 35,0	± 40,5	± 45,0	± 47,0	± 55,0	± 68,5	± 96,5	± 105,5
	Ø10	14	100	± 13,0	± 20,5	± 23,5	± 27,0	± 30,0	± 31,0	± 36,5	± 45,5	± 64,5	± 70,5
	Ø12	16	120	± 9,0	± 14,5	± 16,5	± 19,0	± 21,5	± 22,5	± 26,0	± 32,5	± 46,0	± 50,0
	Ø14	18	140	± 7,0	± 11,0	± 12,5	± 14,5	± 16,0	± 16,5	± 19,5	± 24,5	± 34,5	± 37,5
	Ø16	20	160	± 5,5	± 8,5	± 9,5	± 11,0	± 12,5	± 13,0	± 15,0	± 19,0	± 26,5	± 29,0
	Ø18	22	180	± 4,0	± 7,0	± 7,5	± 9,0	± 10,0	± 10,0	± 12,0	± 15,0	± 21,0	± 23,0
	Ø20	25	200	± 3,0	± 4,5	± 5,0	± 6,0	± 6,5	± 6,5	± 8,0	± 10,0	± 14,0	± 15,0
	Ø22	26	220	± 3,0	± 4,5	± 5,0	± 6,0	± 6,5	± 7,0	± 8,0	± 10,0	± 14,0	± 15,5
	Ø24	28	240	± 2,5	± 4,0	± 4,5	± 5,0	± 5,5	± 6,0	± 7,0	± 8,5	± 12,0	± 13,0
	Ø25	30	250	± 2,0	± 3,0	± 3,0	± 3,5	± 4,0	± 4,5	± 5,0	± 6,5	± 9,0	± 9,5
	Ø26	32	260	± 1,5	± 2,0	± 2,5	± 3,0	± 3,0	± 3,5	± 4,0	± 5,0	± 7,0	± 7,5
	Ø28	35	280	± 1,0	± 1,5	± 2,0	± 2,0	± 2,5	± 2,5	± 3,0	± 3,5	± 5,0	± 5,5
	Ø30	35	300	± 1,0	± 2,0	± 2,5	± 2,5	± 3,0	± 3,0	± 3,5	± 4,5	± 6,0	± 7,0
	Ø32	40	320	± 0,5	± 1,0	± 1,5	± 1,5	± 1,5	± 1,5	± 2,0	± 2,5	± 3,5	± 4,0
FISSAGGI NEI MATERIALI FORATI > FIXINGS IN HOLLOW MATERIALS > FIXATIONS DANS MATERIAUX CREUX > BEFESTIGUNGEN IN LOCHSTEINEN													
	M8	12	50	± 23,5	± 37,5	± 42,5	± 49,0	± 54,5	± 56,5	± 66,5	± 83,0	± 116,5	± 127,5
	M8	12	60	± 19,5	± 31,0	± 35,5	± 40,5	± 45,5	± 47,0	± 55,5	± 69,0	± 97,5	± 106,0
	M8	12	80	± 14,5	± 23,5	± 26,5	± 30,5	± 34,0	± 35,5	± 41,5	± 51,5	± 73,0	± 79,5
	M10	15	85	± 9,0	± 14,0	± 16,0	± 18,5	± 20,5	± 21,5	± 25,0	± 31,0	± 44,0	± 48,0
	M10	15	100	± 7,5	± 12,0	± 13,5	± 15,5	± 17,5	± 18,0	± 21,5	± 26,5	± 37,5	± 40,5
	M10	15	135	± 5,5	± 9,0	± 10,0	± 11,5	± 13,0	± 13,5	± 16,0	± 19,5	± 27,5	± 30,0
	M10	15	140	± 5,5	± 8,5	± 9,5	± 11,0	± 12,5	± 13,0	± 15,0	± 19,0	± 26,5	± 29,0
	M12	20	85	± 5,0	± 8,0	± 9,0	± 10,5	± 11,5	± 12,0	± 14,0	± 17,5	± 24,5	± 27,0
	M14	20	130	± 3,0	± 5,0	± 6,0	± 7,0	± 7,5	± 8,0	± 9,0	± 11,5	± 16,0	± 17,5
	M16	22	150	± 2,5	± 3,5	± 4,0	± 5,0	± 5,5	± 5,5	± 6,5	± 8,0	± 11,5	± 12,5
	M16	22	200	± 1,5	± 3,0	± 3,0	± 3,5	± 4,0	± 4,0	± 5,0	± 6,0	± 8,5	± 9,5
	M20	30	250	± 0,5	± 1,0	± 1,5	± 1,5	± 1,5	± 2,0	± 2,0	± 2,5	± 3,5	± 4,0

> NOTA: Il numero di fissaggi sopra specificato è stato determinato conteggiando esclusivamente il volume teorico di prodotto necessario al riempimento del foro (o gabbietta) escluso il volume della barra inserita. Pur essendo incluso nel calcolo teorico uno spreco standard, il reale quantitativo di prodotto potrà differire da questo in funzione della effettiva modalità di posa in opera adottata.

> WARNING: The number of fixings above mentioned has been calculated according to the theoretical volume needed to fill the hole (or sleeve) excluded the volume of the inserted metal rod. In the theoretical volume it is included a standard extra quantity but the real quantity of the product may be different than it in function of the real application of the product.

> NOTE: Le numéro des fixations sur mentionné a été déterminé en calculant exclusivement le volume théorique de produit nécessaire au remplissage du trou (ou tamis), exclu le volume de la tige filetée. Bien si dans le calcul théorique est incluse une quantité standard de matériel extra, la quantité réelle de produit peut être différente, en fonction des effectives modes d'application du produit.

> ANMERKUNG: Die obengenannte Anzahl der Befestigungen wurde nach dem theoretischen Volumen für die Bohrlöcherfüllung (oder Siebhülse-Füllung) minus dem Volumen der Gewindestange berechnet. Im theoretischen Volumen wird eine Standard-Extra-Menge einkalkuliert, aber die wirkliche Produktmenge kann anders sein, abhängig von der wirklichen Anwendung des Produktes.



INSTALLATION

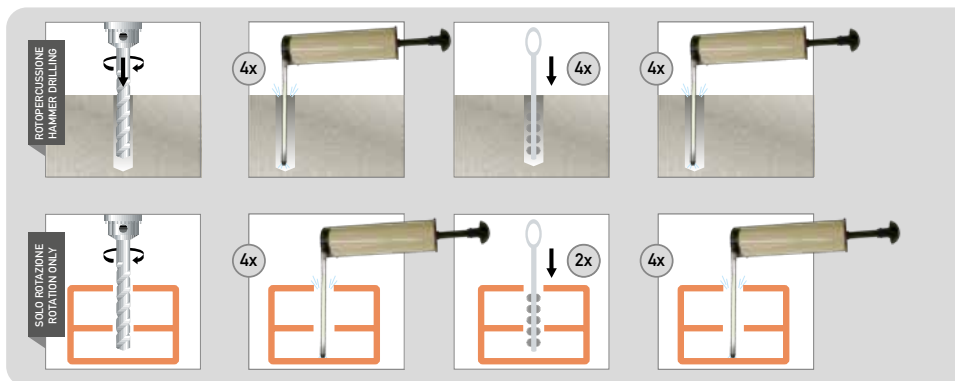
INSTALLATION PROCEDURE

01 CLEANING



SDS-HDB (pag. 227)

If used no need to use blower pump/compressed air to remove the dust from the hole



Drill the hole and check it's perpendicularity. Blow the hole with an appropriate pump blower (or compression air), clean the lateral surface of the hole with an appropriate steel brush, blow again in the hole until there is no dust and/or any residual material inside. We strongly recommend use of the steel brush to clean hole sides.

02 OPENING

BCR 300
BCR 165

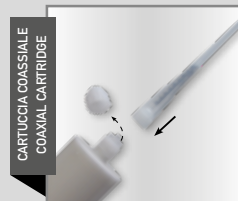


CARTUCCIA A SACCHETTO
FOIL CARTRIDGE (CIC)

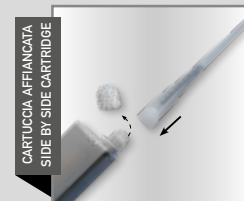


Remove the pressure cup, screw on the mixer and insert the cartridge in the gun. Use protections for hands and face. With the size 300 ml and 165 ml, unscrew the front cup, pull-out the steel closing clip according to the following operations: 1) Insert the mixer in the eye of the plastic extractor. 2) Pull the extractor to unhook the steel closing clip of the foil. After that, screw on the mixer and insert the cartridge in the gun. Use protections for hands and face.

BCR 900 / BCR 825 / BCR 585 / BCR 470 / BCR 400 / BCR 385 / BCR 345 / BCR 265



CARTUCCIA COASSIALE
COAXIAL CARTRIDGE



CARTUCCIA AFFIANCATA
SIDE BY SIDE CARTRIDGE

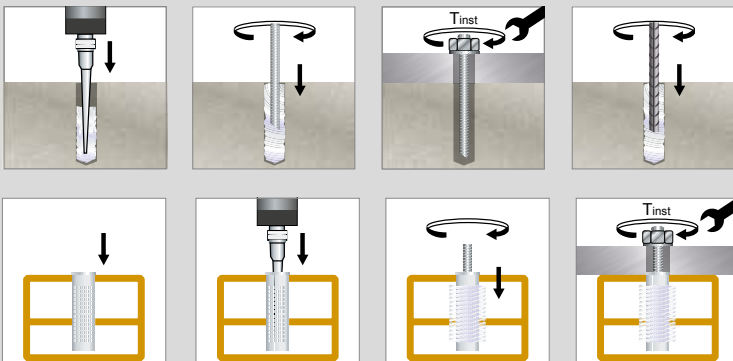


03 CARTRIDGE PREPARATION



Before starting to use the cartridge, eject a first part of the product, being sure that: 1) Through the mixer (transparent) see that the flux of product is compound of the part A (white colour) and of part B (black colour). 2) The two components are completely mixed. The complete mixing is reached only after that the product, obtained by mixing the two component, comes out from the mixer with a uniform colour. Now the cartridge is ready to be used.

04 INJECTION |



1) Inject resin into the hole up to fill it 2/3rds. In hollow bricks use the plastic sleeve and inject the resin inside. 2) Before insert the rod, verify that the element is dry and free oil and other contaminants. Insert threaded stud turning back and forth to avoid presence of air in the fitted hole. 3) For the installation and the following anchor load phase, respect the open time and curing time detailed in the technical data sheet and in the label of the product. 4) Before to load the anchor, check the hardened of the product. 5) The cartridge can be used again screwing the cup and replacing the mixer. We recommend cleaning the product outlet nozzles from any residues of hardened product before assembling the new mixer. Remember to eject a first part of the product, see point 3.

CALCULATOR



www.bossong.com/area-tecnica.html



TECHNICAL DATA SHEET

WARNING. Installation and loads technical data can be modified by us. For update technical data sheet see www.bossong.com or be in contact with our Technical Office.n.

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HIGH LOAD CHEMICAL ANCHOR FOR CONCRETE

