

POLYGREEN

Polyester chemical anchor without styrene

CE Option 7



- CE option 7
- Certified use for cracked and uncracked concrete, solid and hollow brick masonry (category of use b, c, w/w)
- Comply with LEED®, IEQ Credit 4.1
- A+ Class: emission of volatile organic compounds (VOC) in lived environments
- Without styrene - odorless



POLYGREEN



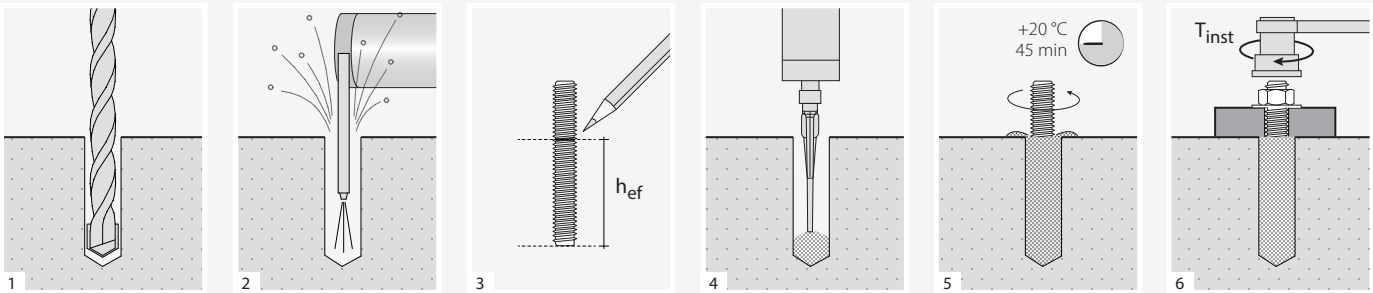
code	format [ml]	pcs/box
FE400060	410	1

Expiry from date of manufacturing: 18 months

ADDITIONAL PRODUCTS-ACCESSORIES

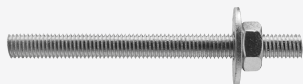
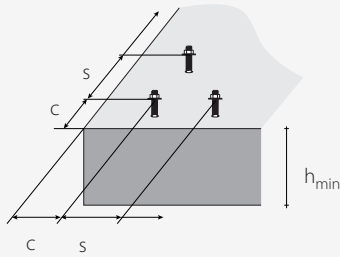
code	description	format [ml]	pcs/box
MAM400	gun for cartridge	410	1
STING	nozzle	-	12
PONY	blowing pump	-	1

ASSEMBLY



INSTALLATION

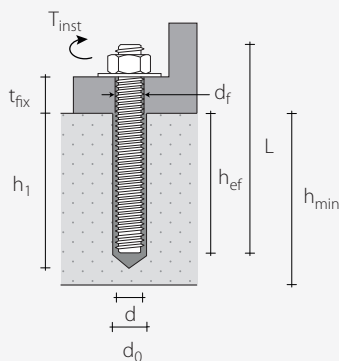
INSTALLATION GEOMETRY – THREADED RODS (TYPE INA O MGS)



d	[mm]	M8	M10	M12	M16	M20	M24
d ₀	[mm]	10	12	14	18	24	28
h _{ef}	[mm]	80	90	110	125	170	210
d _f	[mm]	9	12	14	18	22	26
T _{inst}	[Nm]	10	20	40	60	120	150

			M8	M10	M12	M16	M20	M24
Minimum spacing	s _{min}	[mm]	40	50	60	80	100	120
Minimum edge distance	c _{min}	[mm]	40	50	60	80	100	120
Minimum thickness of concrete support	h _{min}	[mm]	110	120	140	160	215	260

For spacing and distance smaller than the critical ones, strength values have to be reduced depending on the installation parameters.



d = anchor diameter
d₀ = hole diameter in the concrete support
h_{ef} = effective anchor depth
d_f = maximum hole diameter in the element to be fastened

T_{inst} = tightening torque
L = anchor length
t_{fix} = maximum fixing thickness
h₁ = minimum hole depth

INSTALLATION TIME AND TEMPERATURE

support temperature	workability time	curing time before loading
- 5 ÷ 0 °C	90 min	6 h
0 ÷ 5 °C	45 min	3 h
5 ÷ 10 °C	25 min	2 h
10 ÷ 20 °C	15 min	80 min
20 ÷ 30 °C	6 min	45 min
30 ÷ 35 °C	4 min	25 min
+ 35 °C	2 min	20 min

Cartridge storage temperature + 5 ÷ + 25 °C

STATIC CHARACTERISTIC VALUES

Valid for a single threaded rod (type INA o MGS) in C20/25 grade concrete when spacing and edge-distance are not limiting parameters.

UNCRACKED CONCRETE ⁽¹⁾

TENSION ⁽²⁾

bar	$N_{Rk,p}$ [kN]	γ_{Mp}
M8	16,0	1,8
M10	34,7	
M12	35,0	
M16	50,0	
M20	75,0	
M24	95,0	

SHEAR ⁽³⁾

bar	$V_{Rk,s}$ [kN]	γ_{Ms}
M8	9,0	1,25
M10	15,0	
M12	21,0	
M16	39,0	
M20	61,0	
M24	88,0	

increment factor for $N_{Rk,p}$

ψ_c	C30/37	1,08
	C40/50	1,15
	C50/60	1,19

STATIC ADMISSIBLE VALUES

UNCRACKED CONCRETE

TENSION

bar	N_{rec} [kN]
M8	6,3
M10	13,8
M12	13,9
M16	19,8
M20	29,8
M24	37,7

SHEAR

bar	V_{rec} [kN]
M8	5,1
M10	8,6
M12	12,0
M16	22,3
M20	34,9
M24	50,3

GENERAL PRINCIPLES

- Characteristic values according to ETA and in accordance with the design method contained in TR029 o CEN/TS 1992-4:2009.
- Design values can be obtained from characteristic values as follows:

$$R_d = \frac{R_k}{\gamma_m}$$

- Coefficients γ_m are listed in the table in accordance with the product certificates.
- Admissible values (recommended) are evaluated from the characteristic values by applying the material safety factors γ_m according to ETA and applying a further partial factor for actions $\gamma_f = 1,4$.
- For the design of anchors subjected to seismic loading refer to ETA and to ETAG 001 (Annex E and TR045).

NOTES

- ⁽¹⁾ For the calculation of anchors in masonry, please refer to ETA document.
- ⁽²⁾ Pull-out and concrete cone failure.
- ⁽³⁾ Steel failure mode.

INA

5.8 steel-grade threaded-rod for chemical anchors

- Complete with nut (ISO4032) and washer (ISO7089)
- 5.8 grade galvanized steel

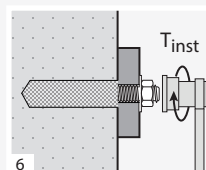
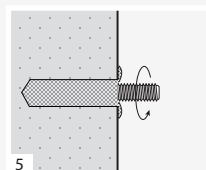
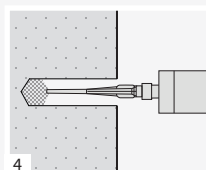
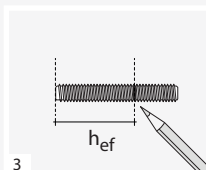
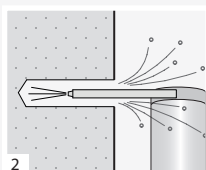
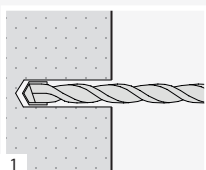
INA



code	d [mm]	L _t [mm]	d ₀ [mm]	d _f [mm]	pcs/box
FE210100	M8	110	10	≤ 9	10
FE210105	M10	110	12	≤ 12	10
FE210110		130	12	≤ 13	10
FE210115	M12	130	14	≤ 14	10
FE210119		180	14	≤ 15	10
FE210116	M16	160	18	≤ 18	10
FE210118		190	18	≤ 18	10
FE210121		230	18	≤ 18	10
FE210117	M20	240	24	≤ 22	10
FE210122	M24	270	28	≤ 26	10
FE210123	M27	400	32	≤ 30	10

d₀ = hole diameter in the support / d_f = hole diameter in the element to be fastened

ASSEMBLY



IHP - IHM

Mesh bush for hollow materials

IHP - PLASTIC MESH



code	d ₀ [mm]	L [mm]	bar [mm]	d ₀ [mm]	pcs/box
FE210120	16	85	M10 (M8)	16	10
FE210125	16	130	M10 (M8)	16	10
FE210130	20	85	M12 / M16	20	10

IHM - METALLIC MESH



code	d ₀ [mm]	L [mm]	bar [mm]	d ₀ [mm]	pcs/box
FE210230	12	1000	M8	12	10
FE210235	16	1000	M8 / M10	16	10
FE210240	22	1000	M12 / M16	22	5

ASSEMBLY

