Tekniset tiedot

POLY-GP
All round Injektointimassa

Ankkurointimassa kiinnitettäessä muuraukseen ja kevytbetoniin.

- *ETA Option 7 for threaded rod and rebar (for uncracked concrete)*

Fixation d'une cloture

Ominaisuudet

Materiaali

- Polyesteri

Hyödyt

- Nopea asennus – säästää aikaa
- Jännitysvapaa kiinnitys
- Pienemmät reuna- ja keskinäiset etäisyydet
- Voidaan käyttää sisätiloissa
- Erittäin kestävä kiinnitys
- Tiivistää reiät

Sovellus

Liitos

- Muuraukseen
- Kevytbetoniin

Käyttökohteet

Lämminvesivaraajan ja ilmanvaihtokoneen asennus

- Teräsrakenteet
- Markiisit
- Palkit
- Kiskojärjestelmät

POLY-GP
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Technical Data

Sisällys

Tuotenro	Product information		
	Sisällys [ml]	Weigth [kg]	Packaging qty [pcs]
POLYGP300BG-DK	300	0.586	12

Design resistance – Tension – NRd [kN] – Carbon steel 5.8

Tuotenro	Design resistance – N_{Rd} – Carbon steel 5.8 [kN]							
	Halkeilematon betoni							
	h_{ef} = 8d				h_{ef} = 12d			
	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60
POLY-GP + LMAS M8	4.6	5	5.3	5.5	6.9	7.4	7.9	8.2
POLY-GP + LMAS M10	7.7	8.3	8.8	9.1	11.5	12.4	13.2	13.7
POLY-GP + LMAS M12	10	10.9	11.6	12	15.1	16.3	17.3	17.9
POLY-GP + LMAS M16	14.3	15.4	16.4	17	21.4	23.2	24.7	25.5

Concrete :
1. The design loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s). The loading figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).

Design resistance – Tension – NRd [kN] – Stainless steel A4-70

Tuotenro	Design resistance – N_{Rd} – Stainless steel A4-70 [kN]							
	Non-cracked concrete							
	h_{ef} = 8d				h_{ef} = 12d			
	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60
POLY-GP + LMAS M8	4.6	5	5.3	5.5	6.9	7.4	7.9	8.2
POLY-GP + LMAS M10	7.7	8.3	8.8	9.1	11.5	12.4	13.2	13.7
POLY-GP + LMAS M12	10	10.9	11.6	12	15.1	16.3	17.3	17.9
POLY-GP + LMAS M16	14.3	15.4	16.4	17	21.4	23.2	24.7	25.5

Concrete :
1. The design loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s). The loading figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).

Design resistance – Shear – VRd [kN] – Carbon steel 5.8

Tuotenro	Design resistance – V_{Rd} – Carbon steel 5.8 [kN]							
	Non-cracked concrete							
	h_{ef} = 8d				h_{ef} = 12d			
	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60
POLY-GP + LMAS M8	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
POLY-GP + LMAS M10	12	12	12	12	12	12	12	12
POLY-GP + LMAS M12	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
POLY-GP + LMAS M16	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2

Concrete :
1. The design loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s). The loading figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).

Tekniset tiedot

POLY-GP
All round Injektointimassa

Design resistance – Shear – VRd [kN] – Stainless steel A4-70

Tuotenro	Design resistance – V_{Rd} – Stainless steel A4-70 [kN]							
	Non-cracked concrete							
	h_{ef} = 8d				h_{ef} = 12d			
	C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60
POLY-GP + LMAS M8	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
POLY-GP + LMAS M10	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
POLY-GP + LMAS M12	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
POLY-GP + LMAS M16	34.3	34.3	34.3	34.3	35.3	35.3	35.3	35.3

Concrete :
1. The design loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s). The loading figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).

Design resistance – hef = 80 mm (≤ M8) or 85 mm (≥ M10) – Carbon steel ≥ 4.6 / Stainless steel ≥ A2-70

Tuotenro	Design resistance – Carbon steel ≥ 4.6 / stainless steel ≥ A2-70			
	h_{ef} = 80 mm (≤ M8) or 85 mm (≥ M10)			
	Tension - N_{Rd} [kN]		Shear - V_{Rd} [kN]	
	Solid Clay Masonry	Hollow Masonry	Solid Clay Masonry	Hollow Masonry
POLY-GP + LMAS M8	1.6	0.8	2.4	0.8
POLY-GP + LMAS M10	1.6	0.8	2.8	0.8
POLY-GP + LMAS M12	1.6	0.8	2.8	0.8

Masonry :

	Compressive strength f_b [N/mm²]	Bulk density ρ [kg/m³]
Solid clay masonry	≥ 18	≥ 1600
Hollow masonry	≥ 6	≥ 900

1. The design resistances have been calculated using the partial safety factors for resistances stated in ETA-approval(s).
2. The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s) and with a partial safety factor for actions of γF=1.4.
3. For combined tension and shear loads or anchor groups and/or in case of edge influence, a calculation acc. TR 054, design method A shall be performed. For details see ETA - assessment(s)
4. Temperature range: -40°C/+40°C (Tmlp = +24°C)
5. Coefficiant factor β for in situ tests acc. ETAG 029 see ETA-19/0642; Annex C2
6. Displacements under service load see ETA-19/0642; Annex C2 & C3

Tekniset tiedot

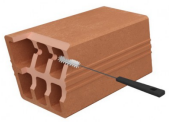
POLY-GP
All round Injektointimassa

Asennus

Kovettuminen

Lämpötila	-5 °C	0 °C	5 °C	10 °C	15 °C	20 °C	30 °C
Työskentelyaika	25 min	15 min	12 min	8 min	7 min	4 min	2 min
Kovettumisaika	4 h	3 h	2 h 30 min	1 h 15 min	55 min	30 min	20 min

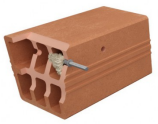
Poraa.



Harjaa.

Asenna reikähylsy.

Injektoi injektointimassa.



Asenna kierretanko hitaasti pyörittäen.

Kovettumisen jälkeen liitoksella on täysi kestävyys.

Poraa.

Poista pöly harjaamalla ja puhaltamalla.

Täytä reiästä puolet tai kaksi kolmasosaa, vedä sekoitusputkea ulospäin jokaisella painalluksella.

Asenna LMAS-kierretanko hitaasti pyörittäen.

Kovettumisen jälkeen liitoksella on täysi kestävyys.

Installation parameters – Concrete

Tuotenro	Installation parameters - Concrete					
	Ø drilling [d_0] [mm]	Max. fixture hole Ø [d_f] [mm]	Drilling depth (8d) [h_0=h_{ef}=8d] [mm]	Drilling depth (12d) [h_0=h_{ef}=12d] [mm]	Wrench size [SW]	Installation torque [T_{inst}] [Nm]
POLY-GP + LMAS M8	10	9	64	96	13	8
POLY-GP + LMAS M10	12	12	80	120	17	10
POLY-GP + LMAS M12	14	14	96	144	19	15
POLY-GP + LMAS M16	18	18	128	192	24	25

Spacing, edge distances and member thickness – Concrete

Tuotenro	Spacing, edge distance and member thickness - Concrete											
	Effective embedment depth (8d) [$h_{ef,8d}$] [mm]	Characteristic spacing for $h_{ef,8d}$ [$S_{cr,N}$] [mm]	Characteristic edge distance for $h_{ef,8d}$ [$c_{cr,N}$] [mm]	Min. member thickness for $h_{ef,8d}$ [h_{min}] [mm]	Effective embedment depth (12d) [$h_{ef,12d}$] [mm]	Characteristic spacing for $h_{ef,12d}$ [$S_{cr,N}$] [mm]	Characteristic edge distance for $h_{ef,12d}$ [$c_{cr,N}$] [mm]	Min. member thickness for $h_{ef,12d}$ [h_{min}] [mm]	Min. spacing [S_{min}] [mm]		Min. edge distance [C_{min}] [mm]	
									8d	12d	8d	12d
POLY-GP + LMAS M8	64	192	96	100	96	288	144	126	32	48	32	48
POLY-GP + LMAS M10	80	240	120	110	120	360	180	150	40	60	40	60
POLY-GP + LMAS M12	96	288	144	126	144	432	216	174	48	72	48	72
POLY-GP + LMAS M16	128	384	192	158	192	576	288	222	64	96	64	96

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