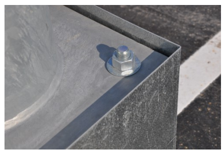
Teknisk datablad

POLY-GP
Universal injeksjonsmasse

Polyesterklebemørtel til montasje i massivstein, hulstein, lettklinkerbetong og betong. Inneholder ikke styren og epoksy.



Innfesting av et gjerde

Egenskaper

Materiale

- Polyesterlim uten styren
- Brukes med gjengestang LMAS i galvanisert stål eller rustfritt stål A4-70

Fordeler

- Rask fastgjøring: sparer tid for brukeren
- Spenningsfri fastgjøring
- Reduserte kant- og ankeravstander
- Mulig å bruke innendørs
- Meget holdbar fastgjøring
- Forsegler hullet
- Lav MAL-kode

Anvendelse

Skjøter

- Murstein
- Porebetong
- Lettklinkerbetong

Bruksområder

- Stål og metallkonstruksjoner
- Skinnesystemer, lagerreoler
- Maskiner, sanitær
- Oppheng av klimaanlegg og vannvarmere
- Antenner
- Markiser
- Fasadekledning

Teknisk data

Références

Art. nr.	Product information						
	DB nr.	NOBB nr.	Grey color	Beige color	Content [ml]	Weigth [kg]	Packaging qty [pcs]
POLYGP300BG-DK	2099769	56491585	-	-	300	0.586	12

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

Art. nr.	Design resistance – N_{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	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).

POLY-GP
Universal injeksjonsmasse

SIMPSON Strong-Tie

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

Art. nr.	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

Art. nr.	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).

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

Art. nr.	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 – Bending moment – MRd [Nm]

Art. nr.	Design resistance – Bending moment – M_{Rd} [Nm]	
	Carbon steel 5.8	Stainless steel A4-70
POLY-GP + LMAS M8	15.2	16.7
POLY-GP + LMAS M10	29.6	34
POLY-GP + LMAS M12	52.8	59
POLY-GP + LMAS M16	133.6	149.4

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).

POLY-GP
Universal injeksjonsmasse

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

Art. nr.	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 M6	1.6	0.8	2.4	0.8
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/m^3]
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

Design resistance – Bending moment – MRd [Nm]

Art. nr.	Design resistance – Bending moment – M_{Rd} [Nm]		
	Carbon steel 5.8	Carbon steel 8.8	Stainless steel ≥ A2-70
POLY-GP + LMAS M6	6.4	9.6	7.1
POLY-GP + LMAS M8	15.2	24	16.7
POLY-GP + LMAS M10	29.6	48	33.3
POLY-GP + LMAS M12	52.8	84	59

Masonry :

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

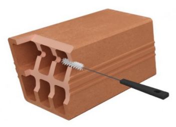
1. The design resistances have been calculated using the partial safety factors for resistances stated in ETA-approval(s).
2. The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s) and with a partial safety factor for actions of γF=1.4.
3. 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

Montering

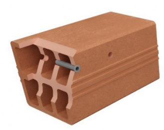
Herdetid

Underlagstemperatur [°C]
Bearbeidingstid
Herdetid

Bor hullet

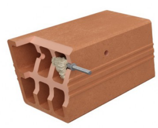


Rengjør hullet med stålbørste og blåsepumpe (blås 5x, børst 4x og blås 5x)

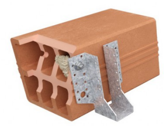


Sett inn en hylse

OBS: Trykk først ut klebemørtelen til den får en jevn farge. Trykk deretter inn mørtel i hullet



Sett inn gjengestangen forsiktig med en roterende bevegelse, og la klebemørtelen herde



Skru fast emnet

Bor hullet

Rengjør hullet med stålbørste og blåsepumpe (blås 5x, børst 4x og blås 5x)

Fyll opp hullet 1/2 - 2/3 med klebemørtel ved å pumpe fra bunnen og ut

Sett inn LMAS-ankeret med en roterende bevegelse og la mørtelen tørke

Sett på emnet og spenn det fast med en kalibrert momentnøkkel

Installation parameters – Concrete

Art. nr.	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

Art. nr.	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

Installation parameters – Masonry – Solid clay masonry

Art. nr.	Installation parameters - Solid clay masonry			
	Ø drilling [d_0] [mm]	Max. fixture hole Ø [d_f] [mm]	Drilling depth [h_1] [mm]	Installation torque [T_{inst}] [Nm]
POLY-GP + LMAS M6	8	7	85	2
POLY-GP + LMAS M8	10	9	85	2
POLY-GP + LMAS M10	12	12	90	2
POLY-GP + LMAS M12	14	14	90	2

Installation parameters – Masonry – Hollow masonry

Art. nr.	Installation parameters - Hollow masonry			
	Ø drilling [d_0] [mm]	Max. fixture hole Ø [d_f] [mm]	Drilling depth [h_1] [mm]	Installation torque [T_{inst}] [Nm]
POLY-GP + LMAS M6	12	7	85	1.5
POLY-GP + LMAS M8	12	9	85	1.5
POLY-GP + LMAS M10	16	12	90	1.5
POLY-GP + LMAS M12	16	14	90	1.5

Spacing, edge distances and member thickness – Masonry – Solid clay masonry

Art. nr.	Spacing, edge distance and member thickness - Solid clay masonry			
	Min. spacing [S_{min}] [mm]			Min. edge distance [C_{min}] [mm]
	$s_{cr,N} = s_{min}$	$s_{cr,N}\parallel = s_{min}\parallel$	$s_{cr,N}^{\top} = s_{min}^{\top}$	$c_{cr,N} = c_{min}$
POLY-GP + LMAS M6	240	-	-	120
POLY-GP + LMAS M8	240	-	-	120
POLY-GP + LMAS M10	255	-	-	127.5
POLY-GP + LMAS M12	255	-	-	127.5

Spacing, edge distances and member thickness – Masonry – Hollow masonry

Art. nr.	Spacing, edge distance and member thickness - Hollow masonry			
	Min. spacing [S_{min}] [mm]			Min. edge distance [C_{min}] [mm]
	$s_{cr,N} = s_{min}$	$s_{cr,N} \parallel = s_{min} \parallel$	$s_{cr,N}^T = s_{min}^T$	$c_{cr,N} = c_{min}$
POLY-GP + LMAS M6	-	250	120	100
POLY-GP + LMAS M8	-	250	120	100
POLY-GP + LMAS M10	-	250	120	100
POLY-GP + LMAS M12	-	250	120	100

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