

Technical data sheet clic[®]top 8 – 64 mm

1. Manufacturer

Egli, Fischer & Co. Ltd.
 Gotthardstrasse 6
 P.O. Box
 8022 Zurich
 Switzerland

2. Product description

One-piece, self locking plastic pipe clamp for the exterior and indoor area

3. Application areas

- Plumbing trade
- Chemical industry
- Electrical installations (tubular cable protection)
- Coaxial cable fixing
- Sanitary installation
- Swimming pools

4. Features

- Locking system without additional screws
- Very high dynamic load
- Very high stress corrosion crack stability
- Very low moisture absorption
- Chloride- and weather resistant
- Clamping range 8 – 64 mm (0.31" to 2.52")
- Mounting with metrical or wood screws
- Approved by: KIWA[®], UL[®] and IAPMO R&T/UPC[®]

5. Technical data

Material quality	Polyamide PA 12
Density at +20 °C	1,01 g/cm ³
Elongation at yield	12 %
E-Modulus in tension	1100 MPa
Water absorption at 23 °C	1,50 %
Moisture absorption (23 °C / 50 % r.F.)	0,50 %
Shore hardness D	70
Disruptive strength	32 kV/mm
Weather proof	-40 °C up to +110 °C
Mounting temperature	down to -25 °C
Maximum service temperature short term	+150 °C
Maximum service temperature long term	+90 to +110 °C
Flammability	HB according to UL 94
Calorific / energy value	34 kJ / gram
Impact value (Charpy, +23 °C)	7
Impact value (Charpy, -30 °C)	6
Halogen	halogen free as per IEC 754-2
Petrol, diesel, oil	resistant
Corrosion	resistant
Chloride salt	resistant
UV	resistant ISO 4892-2
Standard colours	dark grey (RAL 7001), black (RAL 9011), white (RAL 9010), red (RAL 3020)
Special colours	on request

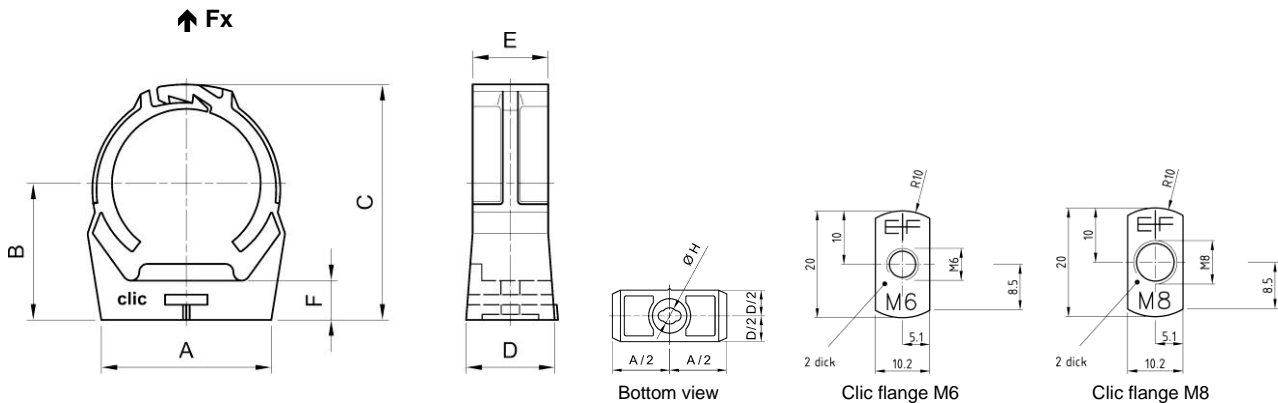
6. Product data

6.1 Product choice

Type	Steel		Copper	Cast iron	PE	PVC	Cable-ducts metric measures M	Coaxial cable inch	Certification			Breaking load [N] Fx**
	mm	inch	mm	mm	mm	mm			Kiwa	UPC	UL	
8							8			✓	✓	450
10			10				10		✓	✓	✓	470
12	13,5	1/4"	12				12		✓	✓	✓	500
15			15			16	16	1/2"	✓	✓	✓	650
17	17,2	3/8"	18						✓	✓	✓	700
20	21,3	1/2"				20	20	5/8"	✓	✓	✓	750
22			22						✓	✓	✓	800
25	26,9	3/4"				25	25		✓	✓	✓	900
28			28					7/8"	✓	✓	✓	950
32	33,7	1"	35		32	32	32		✓	✓	✓	1100
36								1 1/4"	✓	✓	✓	1200
40	42,4	1 1/4"	42		40		40		✓	✓	✓	1350
47	48,3	1 1/2"		48	50	50	50	1 5/8"	✓	✓	✓	1400
51			54						✓	✓	✓	1500
59	60,3	2"	64			63				✓	✓	1600

** with screw DIN 96 at +20 °C, safety factor must be considered!

6.2 Technical information



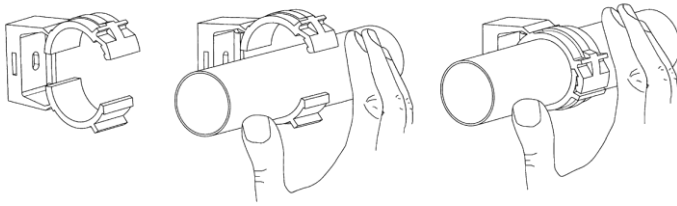
Type	Clamping range [mm]		A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	H*		Breaking load [N] Fx**
	min.	max.							wood [mm]	metric	
8	7,8	9,5	17,1	17,5	26,4	17,1	14,5	7,5	3,5	M6	450
10	9,5	11,8	17,1	17,5	26,2	17,1	14,5	7,5	3,5	M6	470
12	11,8	14,3	20,2	19,5	28,3	17,2	14,5	7,5	3,5	M6	500
15	14,3	16,8	20,6	18,8	32,0	17,1	14,5	7,5	3,5	M6	650
17	16,8	19,5	22,5	23,7	35,4	19,5	16,0	7,8	4,5	M6	700
20	19,5	21,8	24,8	24,9	39,4	20,0	16,3	7,8	4,5	M6	750
22	21,8	24,8	27,8	26,0	42,0	20,0	16,5	7,8	4,5	M6	800
25	24,8	27,8	30,4	28,0	45,1	20,0	17,0	8,8	4,5	M6	900
28	27,8	31,2	33,4	31,7	48,9	20,2	17,0	8,8	4,5	M6	950
32	31,2	35,5	38,0	34,5	54,4	21,0	17,5	9,0	4,5	M6 / M8	1100
36	35,5	39,5	41,8	36,5	59,4	21,0	18,0	9,1	4,5	M6 / M8	1200
40	39,5	43,5	46,2	38,2	64,2	21,0	18,6	9,4	4,5	M6 / M8	1350
47	46,5	50,5	53,5	43,0	72,8	22,0	19,5	9,8	4,5	M6 / M8	1400
51	50,5	55,5	58,6	46,8	78,7	23,0	20,0	10,2	4,5	M6 / M8	1500
59	58,5	64,0	66,3	52,0	88,2	23,2	21,0	10,7	4,5	M6 / M8	1600

* H = screw diameter; wood screw (wood) / metal screw (metric)

** with screw DIN 96 at +20 °C, safety factor must be considered!

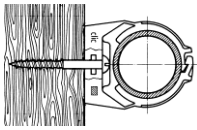
6.3 Mounting types

Easy to install

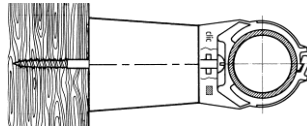


Simply mount CLIC, push pipe in by hand, grips and locks by applying slight pressure.
To open: unlock the CLIC latch with screwdriver.

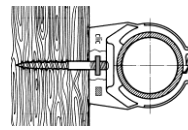
Wood subsoil



With wood screw

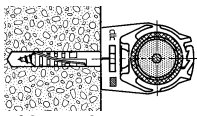


with wood screw and
CLIC spacer

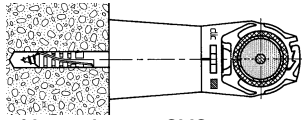


with wood anchor bolt with metric
thread end and CLIC spacer

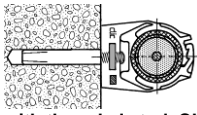
Concrete subsoil



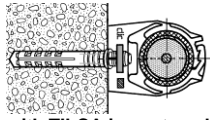
with wood screw
and DELTA nylon plug



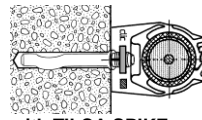
with wood screw, CLIC spacer and
DELTA nylon plug



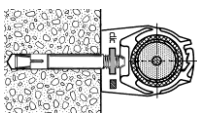
with threaded stud, CLIC flange
and TILCA hammer set anchor



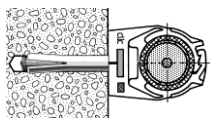
with TILCA impact anchor S
and CLIC flange



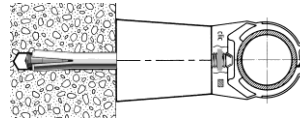
with TILCA SPIKE anchor nail DA
and CLIC flange



with TILCA anchor bolt
and CLIC flange

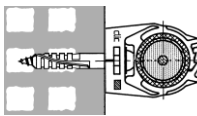


with TILCA fire resisting anchor
and CLIC flange

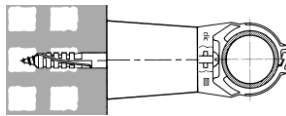


with TILCA fire resisting anchor,
CLIC flange and spacer

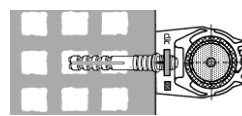
Brick subsoil



with wood screw and
DELTA nylon plug

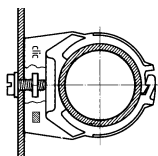


with wood screw, spacer
and DELTA nylon plug



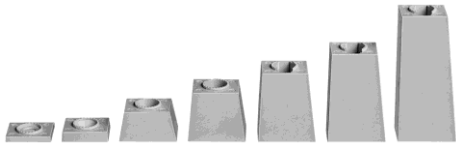
with TILCA impact anchor S
and CLIC flange

Metal plate subsoil



with metal screw, washer
and CLIC flange

6.4 Accessories



CLIC spacer 2,5–85 mm



CLIC flange M 6 / M 7 / M 8



CLIC base plate for mounting of 2 pcs



CLIC base plate for mounting of 3 pcs



DELTA nylon plug



TILCA hammer set anchor



TILCA nail-in plug



Double-thread stud



wood screw



wood anchor



wood screw



TILCA fire resisting anchor



TILCA SPIKE anchor nail



TILCA anchor bolt

7. Chemical resistance

Material	Concentration	Resistance at +23 °C		Material	Concentration	Resistance at +23 °C
Acetic acid		●●		Milk		●●●
Acetone		●●●		Mineral oil		●●●
Acetylene		●●●		Naphthaline		●●●
Aluminium salts	aqueous	●●●		Nitric acid		○
Ammonia	aqueous	●●●		Nitrobenzene		●●
Amylacetate		●●		Oils		●●●
Aniline		●●●		Oleic acid		●●●
Antifreeze		●●●		Oleum		○
Benzene		●●●		Oxalic acid		●●●
Benzine		●●●		Oxygen		●●●
Benzyl alcohol		●		Ozone		●
Bromine		●		Paraffin oil		●●●
Butane		●●●		Perchlorethylene		●●●
Butanol		●●●		Petroleum		●●●
Carbon tetrachloride		●●		Petroleum ether		●●●
Caustic potash	10%	●●●		Phenol		●
Caustic potash	50%	●●●		Potash		●●●
Chlorobenzene		●		Propane		●●●
Chlorine		○		Pyridine		●●●
Chloroform		●		Salicylic acid		●●●
Citric acid		●●		Sea water		●●●
Copper sulphate		●●●		Silicon oils		●●●
Cresol		○		Soap suds		●●●
Decalin		●●●		Soda	10%	●●●
Eatible fat		●●●		Soda	50%	●●●
Engine oil		●●●		Sodium chloride	saturated	●●●
Ethanol		●●●		Sodium hydroxide	10%	●●●
Ether		●●●		Sodium hydroxide	50%	●●●
Ethyl acetate		●●●		Sodium silicate		●●●
Ethylene oxide		●●●		Sodium sulphate	concentrated	●●●
Fats		●●●		Starch		●●●
Fluorine gas		●		Stearic acid		●●●
Formaldehyde		●●		Stearin		●●●
Formic acid	concentrated	●		Styrene		●●●
Frigen	liquid F12	●●●		Sulphur dioxide		●●
Frigen	liquid F22	●		Sulphuric acid	10%	●●
Fuel		●●●		Sulphuric acid	concentrated	●
Glycerine		●●●		Table salt		●●●
Glycol		●●●		Tallow		●●●
Heating oil		●●●		Tartaric acid		●●●
Heptane		●●●		Tetralin		●●●
Hydraulic oil		●●●		Toluene		●●●
Hydrochloric acid	1%	●●		Transformer oil		●●●
Hydrochloric acid	10%	●		Trichlorethane		●●
Hydrogen peroxide	20%	●●		Trichlorethylene		●●
Hydrosulphide		●●●		Turpentine		●●●
Iodine tincture		○		Urea		●●●
Iso-octane		●●●		Uric acid		●●●
Isopropanol		●●●		Urine		●●●
Kaliumpermanganat		○		Vaseline		●●●
Kerosene		●●●		Vinegar		●●●
Lactic acid		●●		Water		●●●
Magnesium chloride	10%	●●●		Wax		●●●
Mercury		●●●		Xylene		●●●
Methane		●●●		Zinc chloride	aqueous	●●●
Methanol		●●				
Methylene chloride		●				

●●● resistant - ●● limited resistance - ● not resistant - ○ soluble, greatly affected

Chemical resistance

In general, polyamide 12 is resistant to many organic solvents and alkalis. Grilamid is also unaffected by petroleum fractions, oils and fats.

Concentrated acids cause relatively rapid hydrolytic degradation of all polyamides but PA 12 is resistant to dilute mineral acid and most organic acids.

The hydrolysis and environmental stress-cracking resistance of Grilamid are the most significant advantages of Grilamid in comparison to other engineering plastics.

PA 12 has a distinctly higher hydrolysis resistance than PA6 and PA66. The matrix is less hydrophilic, absorbs less water, even at elevated temperatures and, therefore, is less affected by hydrolysis.

The recommendations and data given are based on our experience to date. No liability can be assumed in connection with their usage and processing.

For technical advice please contact our sales engineers. We will be happy to provide further assistance.
