

12/2014

Plastic pipe clamp CLIC TOP 8–64

## Technical data sheet

# 1. Product description

The most efficient mounting system for pipes, cables and many other applications. Diameter dimensions ranging from 8 to 64 mm for the exterior and the indoor area, as well as tunnels.

### 2. Application areas

- Electrical installation of all kinds in the indoor and exterior area
- Installation technology, installation of small pipes, also in wet locations
- Installations within the chemical industry, due to high chemical resistance
- Tunnels, fixing of coaxial cables

## 3. Features

- One-piece, self locking plastic pipe clamp
- Tool-free installation system
- Very high dynamic load and stress corrosion crack stability
- Very low moisture absorption (suitable for wet locations)
- Chloride- and weather resistant
- UV resistant (for the exterior area)
- Wide range of mounting temperature from -30 °C to +110 °C
- Mounting with metrical or wood screws
- Approved by: KIWA, UL (1565/2043)
- 100 % made in Switzerland

## 4. Material data

Material quality Density at +20 °C Elongation at yield E-Modulus in tension Water absorption at 23 °C Moisture absorption (23 °C / 50 % r.F.) Polyamide PA 12 1.01g/cm<sup>3</sup> 12 % 1100 MPa 1.50 % 0.70 %



#### **Fixing Technology**

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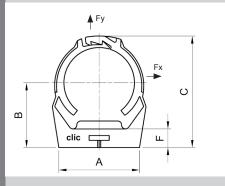
# 4. Material data (cont.)

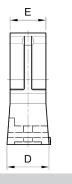
Dielectric strength	32kV/mm
Weather proof	–30 °C up to +110 °C
Maximum service temperature short term	+150 °C
Maximum service temperature long term	+110 °C
Flammability	HB according to UL 94
Impact value (Charpy, +23 °C)	7 kJ/m <sup>2</sup>
Impact value (Charpy, –30 °C)	6 kJ/m <sup>2</sup>
Halogen	halogen free as per IEC 754-2
Petrol, diesel, oil	resistant
Corrosion	resistant
Chloride salt	resistant
UV	resistant as per ISO 4892-2
Standard colours	dark grey (similar to RAL 7001)
	black (similar to RAL 9011)

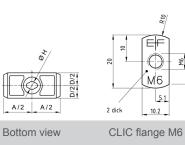
# 5. Technical data

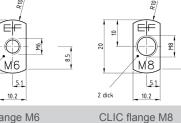
Туре	Clamping ra	ange [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	H*		Breaking load [N]
	min.	max.							wood [mm]	metric	Fy/Fx**
8	7.8	9.5	17.1	17.5	26.4	17.1	14.5	7.5	3.5	M6	450
10	9.5	11.8	17.1	17.5	26.2	17.1	14.5	7.5	3.5	M6	470
12	11.8	14.3	20.2	19.5	28.3	17.2	14.5	7.5	3.5	M6	500
15	14.3	16.8	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!









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### 6. Selection guide

Туре	Steel	pipe	Copper pipe	Cast iron pipe	PE pipe	PVC pipe	Cable-ducts	Coaxial cable	Certific	ation	Breaking load [N]
	mm	inch	mm	mm	mm	mm	metric measures M	inch	Kiwa	UL	Fy/Fx*
8							8			$\checkmark$	450
10			10				10		$\checkmark$	$\checkmark$	470
12	13.5	1/4"	12				12		$\checkmark$	$\checkmark$	500
15			15			16	16	1/2"	$\checkmark$	$\checkmark$	650
17	17.2	3/8"	18						√	$\checkmark$	700
20	21.3	1/2"				20	20	5/8"	$\checkmark$	$\checkmark$	750
22			22						$\checkmark$	$\checkmark$	800
25	26.9	3/4"				25	25		$\checkmark$	$\checkmark$	900
28			28					7⁄8"	$\checkmark$	$\checkmark$	950
32	33.7	1"	35		32	32	32		$\checkmark$	$\checkmark$	1100
36								1 1⁄4"	$\checkmark$	$\checkmark$	1200
40	42.4	1 1⁄4"	42		40		40		$\checkmark$	$\checkmark$	1350
47	48.3	1 1⁄2"		48	50	50	50	1 5⁄8"	$\checkmark$	$\checkmark$	1400
51			54						$\checkmark$	$\checkmark$	1500
59	60.3	2"	64			63				$\checkmark$	1600

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

# 7. Chemical resistance

Material	Concentration	Resistance at +23 °C	Material	Concentration	Resistance at +23 °C	Material	Concentration	Resistance at +23 °C
Acetic acid		••	Ether		•••	Methane		•••
Acetone		•••	Ethyl acetate		•••	Methanol		••
Acetylene		•••	Ethylene oxide		•••	Methylene chloride		•
Aluminium salts	aqueous	•••	Fats		•••	Milk		•••
Ammonia	aqueous	•••	Fluorine gas		•	Mineral oil		•••
Amylacetate		••	Formaldehyde		••	Naphthaline		•••
Aniline		••	Formic acid	concentrated	•	Nitric acid		0
Antifreeze		•••	Frigen	liquid F12	•••	Nitrobenzene		••
Benzene		•••	Frigen	liquid F22	•	Oils		•••
Benzine		•••	Fuel		•••	Oleic acid		•••
Benzyl alcohol		•	Glycerine		•••	Oleum		0
Bromine		•	Glycol		•••	Oxalic acid		•••
Butane		•••	Heating oil		•••	Oxygen		•••
Butanol		•••	Heptane		•••	Ozone		•
Carbon tetrachloride		••	Hydraulic oil		•••	Paraffin oil		•••
Caustic potash	10%	•••	Hydrochloric acid	1%	••	Perchlorethylene		•••
Caustic potash	50%	•••	Hydrochloric acid	10 %	•	Petroleum		•••
Chlorbenzene		•	Hydrogen perioxide	20 %	••	Petroleum ether		•••
Chlorine		0	Hydrosulphide		•••	Phenol		•
Chloroform		•	lodine tincture		0	Potash		•••
Citric acid		••	Iso-octane		•••	Propane		•••
Copper sulphate		•••	Isopropanol		•••	Pyridine		•••
Cresol		0	Kaliumpermanganat		0	Salicylic acid		•••
Decalin		•••	Kerosene		•••	Sea water		•••
Eatible fat		•••	Lactic acid		••	Silicon oils		•••
Engine oil		•••	Magnesium chloride	10 %	•••	Soap suds		•••
Ethanol		•••	Mercury		•••	Soda	10 %	•••

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

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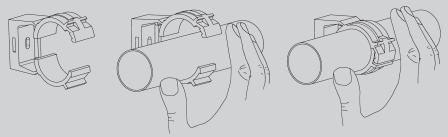
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# 7. Chemical resistance (cont.)

Material	Concentration	Resistance at +23 °C	Material	Concentration	Resistance at +23 °C	Material	Concentration	Resistance at +23 °C
Soda	50 %	•••	Sulphuric acid	10 %	••	Urea		•••
Sodium chloride	saturated	•••	Sulphuric acid	concentrated	•	Uric acid		•••
Sodium hydroxide	10 %	•••	Table salt		•••	Urine		•••
Sodium hydroxide	50 %	•••	Tallow		•••	Vaseline		•••
Sodium silicate		•••	Tartaric acid		•••	Vinegar		•••
Sodium sulphate	concentrated	•••	Tetralin		•••	Water		•••
Starch		•••	Toluene		•••	Wax		•••
Stearic acid		•••	Transformer oil		•••	Xylene		•••
Stearin		•••	Trichlorethane		••	Zinc chloride	aqueous	•••
Styrene		•••	Trichlorethylene		••			
Sulphur dioxide		••	Turpentine		•••			
Sodium hydroxide Sodium silicate Sodium sulphate Starch Stearic acid Stearin Styrene	50 %	000   000   000   000   000   000   000   000   000   000   000	Tallow Tartaric acid Tetralin Toluene Transformer oil Trichlorethane Trichlorethylene		000 000 000 000 000 00	Vaseline Vinegar Water Wax Xylene	aqueous	••• ••• ••• •••

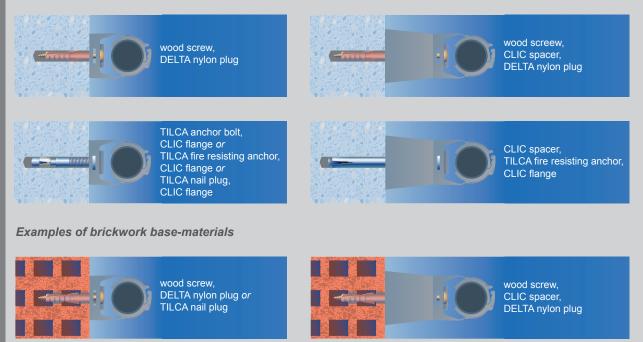
••• resistant | •• limited resistance | • not resistant | O soluble, greatly affected

# 8. Installation/mounting



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

#### Examples of concrete base-materials



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### 9. Testings/authorizations/specifications/compliance

KIWA UL REACH, RoHS

## 10. Safety data sheet

not required

### 11. Manufacturer/brand/production

Egli, Fischer & Co. Ltd., Zurich Gotthardstrasse 6 | Post Box 2265 | 8022 Zurich | Switzerland

CLIC is a registered international trademark of Egli Fischer and is 100% Swiss made. The CLIC technology is protected by Swiss and international patents held by Egli Fischer.

# clic

# 12. Accessories

Further accessories, e.g. spacers, base plates for multiple mountings, are available at the EF Shop (online) or are listed in the EF catalogue (print or PDF).

## 13. Links/downloads

For further information:

EF Shop	http://shop.efco.ch
EF Website	http://www.efco.ch
CLIC-Website	http://www.clic-original.com

The recommendations and data given are based on our experience to date and are standard values. No liability can be assumed in connection with their usage and processing. In individual cases the chemical resistance has to be verified by your own testings.

For further technical information please refer to Egli Fischer.

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