

PUMAFIX TQP



DESCRIPTION

Injection resin for anchorage, 2-component and fast curing, resin-based polyester. Styrene-free. Multifunctional, for solid or hollow substrates.

TECHNICAL CHARACTERISTICS

Styrene-free, unsaturated polyester resin.

ADVANTAGES AND USES

- Chemical bonding of horizontal and vertical anchors.
- Suitable for solid and hollow substrates.
- Styrene-free; low odour.
- Easy extrusion and injection.
- Thixotropic, can be applied either horizontally or vertically.
- Fast curing.
- Can be applied with conventional guns.
- For use on concrete, bricks and concrete masonry units in a wide range of applications: bonding doors, railings, balustrades, Persian blinds, awnings, aerials, signs, cable tray channelling, industrial machinery...

SUITABLE SUBSTRATES

- Substrates must be resistant, stable, sound and clean, free of dust, demolding agents, organic products, etc. It is not necessary for them to be 28 days old.
- If the condition of the substrate is unknown, it is recommended to carry out extraction tests to test the suitability of the substrate.
- Once the perforation of the substrate has been made, clean any residue using compressed air or a cylindrical brush.
- Threaded or round steel rods must be free from any oil or grease.

APPLICATION PROCEDURE

INSTALLATION INSTRUCTIONS FOR SOLID BRICKWORK

CONCRETE REPAIR

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- Drill a hole in accordance with the diameter and depth shown on the application table. During the drilling process, the perpendicularity of the hole in the substrate should be checked.
- Clean the hole of dust, fragments, oil, water, grease and other contaminants before injecting the mortar (with the manual blower and standard manual brush).
- The cleaning of the hole consists of 4 blowing operations, 4 brushing operations followed by a further 4 blowing operations.
- Before brushing, the brush must be cleaned and the diameter checked to ensure it is the correct size.
- The threaded rod must be free from any dust, grease, oil and other impurities.
- Unscrew the top of the cartridge, engage the mixing nozzle to the cartridge and position in the gun.
- At the start of using a new cartridge, eject some product until a uniform colour of the mortar appears.
- Fill the drilled hole uniformly from the bottom up to avoid air pockets, moving the nozzle slowly outwards.
- Fill 2/3 of the depth of the drilled hole with mortar.
- Insert the threaded rod slowly and with a slight rotating movement, remove the excess mortar injected from around the threaded rod.
- Wait the necessary curing time in accordance with the datasheet.
- Do not move or load the anchor until the curing process has finished.

INSTALLATION INSTRUCTIONS FOR HOLLOW/PERFORATED BRICKWORK

- Drill a hole in accordance with the diameter and depth shown on the application table. During the drilling process, the perpendicularity of the hole in the substrate should be checked.
- Clean the hole of dust, fragments, oil, water, grease and other contaminants before injecting the mortar (with the manual blower and standard manual brush).
- The cleaning of the hole consists of 4 blowing operations, 2 brushing operations followed by a further 4 blowing operations.
- Before brushing, the brush must be cleaned and the diameter checked to ensure it is the correct size.
- The threaded rod must be free from any dust, grease, oil and other impurities.
- Select the correct size of sieve.
- Unscrew the top of the cartridge, engage the mixing nozzle to the cartridge and position in the gun.
- At the start of using a new cartridge, eject some product until a uniform colour of the mortar appears.
- Remove the top of the plastic sieve.
- Introduce the plastic sieve in the hole.
- Fill the sieve uniformly from the bottom up, moving the mixing nozzle slowly towards the outside: move the mixing nozzle 10 mm towards the outside each time you pull the trigger.
- Completely fill the sieve.
- Place the top on the filled plastic sieve.
- Insert the threaded rod slowly and with a slight rotating movement, remove the excess mortar injected from around the threaded rod.
- Wait the necessary curing time in accordance with the datasheet.
- Do not move or load the anchor until the curing process has finished.

Number of Anchors per drilled hole diameter

Anchor	INSTALLATION IN HOLLOW SUBSTRATES	
	Sieve 16/85	Sieve 16/130
Rod	280 ml	280 ml
M8	11	7
M10	11	7
M12	11	7
M16	-	-
M20	-	-

Anchor	INSTALLATION OF CONCRETE RODS	
Rod		
	280 ml	
M8	65/75	

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M10	37/40
M12	22/25
M16	11/13
M20	5/6

See application tables for hole depth and diameter values

APPLICATION TABLE FOR RODS IN HOLLOW SUBSTRATES

Anchor		Installation				Permissible loads			
Nozzle	Rod class 5.8	Drill piece diameter d_0	Drill depth	Hole depth h_{ef}	Torque T_{inst}	Hollow bricks f_{cm} : 4,50 MPa	Concrete masonry units f_{cm} : 6,00 MPa		
		[mm]	[mm]	[mm]	[Nm]	Traction [kN]	Shears [kN]	Traction [kN]	Shears [kN]
16/85	M8	17	90	85	4	0,40	1,10	-	-
16/85	M10	17	90	85	4	0,40	1,10	-	-
16/85	M12	17	90	85	4	0,40	1,10	-	-
16/130	M8	17	135	130	4	-	-	0,70	1,50
16/130	M10	17	135	130	4	-	-	0,70	1,50
16/130	M12	17	135	130	4	-	-	0,70	1,50

APPLICATION TABLE FOR CONCRETE RODS

Anchor		Installation				Resistance	Permissible load	
Rod class 5.8	Drill piece diameter d_0	Hole depth h_{ef}	Standard distance edges C_{Cr}	Standard distance anchors S_{Cr}	Torque T_{inst}	Characteristic resistance N_{Rk}	Concrete C20/25	Concrete C20/25
	[mm]	[mm]	[mm]	[mm]	[N.m]	Traction [kN]	Traction [kN]	Shears [kN]
M8	10	80	80	160	10	14,7	4,9	5,8
M10	12	90	90	180	20	20,5	6,8	9,2
M12	14	110	110	220	40	34,6	11,5	13,4
M16	18	125	125	250	60	47,9	16,0	24,9
M20	24	170	170	340	100	81,4	27,1	39,2

Safety factor of 3.0 load stress

RECOMMENDATIONS

- Do not apply under 5°C nor above 30°C. Higher temperatures will considerably reduce the life of the mixture.
- Using on site and adjustments to the product are only possible before the hardening of PUMAFIX TQP.
- The anchor point must be positioned within the open time.
- During the hardening of the resin the anchor must not be moved or loaded (wait for the necessary time).
- Store between 5°C and not above 25°C
- Consult the product label. For more information see the safety datasheet. Please respect regulations, hygiene and waste disposal in the workplace.

PACKAGING AND STORAGE

80 ml 2-component cartridges.

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TECHNICAL DATA

Shelf life: 18 month in sealed original packaging, sheltered from weather conditions and humidity and stored between 5°C and not above 25°C.

(Statistical data obtained under standard conditions)

Density	1,80 Kg/dm ³
Colour	Light Grey (Comp. A: beige; Comp. B: black)
Resistance to compression (ASTM D695)	63 N/mm ²
Compression module (ASTM D695)	6300 N/mm ²
Open time and speed of curing	

Application temperature	Open time	Curing time
5° C	15 min.	120 min.
10° C	12 min.	90 min.
20° C	6 min.	45 min.
30° C	3 min.	20 min.

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