

## CHEMICAL ANCHOR (POLYESTER)

### 1 – DESCRIPTION

**Chemical Anchor** is polyester injection mortar for general purpose for solid and hollow supports having a short cure time. It is suitable for use in concrete, perforated bricks and cavity blocks in a wide range of applications.

### 2 – PROPERTIES

- Suitable for solid and hollow structures.
- High solid content.
- Easy to extrude and to inject.
- Thixotropic, can be applied in vertical and horizontal direction.
- Fast curing.

### 3 - APPLICATIONS

- Low to Medium-load applications in solid and hollow supports
- Fixing of; Gates, Balustrades, Roller blinds, Panes, Antennas, Consoles, Cable trays etc.

### 4 - INSTRUCTIONS

#### CARTRIDGE USE

- Unscrew the cap of the cartridge
- Screw the mixing nozzle onto cartridge
- Insert the cartridge in the gun
- Remove the mixture until the two components have a homogeneous light grey color in the nozzle (Avoid using the first 10 ml)

#### APPLICATION

- Choose a drill of suitable dimensions depending on the rod to be anchored
- Remove the water and dirt (dust and loose material) with a circular brush and a blower or with air pressure
- The items to be fastened must be clean
- In case the anchor is set in a hollow brick, introduce the sleeve of suitable dimensions (for brick: sleeve 16 mm x 85 mm, and for concrete block: sleeve 16 mm x 130 mm)
- In the case of a solid base material, inject the product from the base of the hole until 2/3 full
- Insert the element to be fastened rotating, if necessary, keep the position with a suitable device
- Unscrew the mixing nozzle and replace the cap

## 5- PACKAGING

Product	Volume	Package
Chemical Anchor	300ml	12
Chemical Anchor	345ml	12
Chemical Anchor	410ml	12

## 6- STORAGE AND SHELF LIFE

Store the product in a ventilated place away from direct exposure to sunlight. Keep between 5°C and 25°C. Once the package is opened, it should be used in a month. Shelf life of the unopened original packaging is one year from manufacturing date.

## 7- SAFETY

Flammable. Low toxicity. Irritating to skin. May cause sensitization by skin contact. Wear suitable protective clothing, gloves, eye&face protection. Consult SDS for further information.

## 8- RESTRICTIONS

- Do not apply to wet surfaces.
- Before injection, verify the expiry date of the product, the support resistance and the ambient temperature. Settings in any subsequent adjustment are only possible during working time.

## 9- TECHNICAL PROPERTIES

### PHYSICAL PROPERTIES

<b>Basis</b>	: Unsaturated Polyester
<b>Color</b>	: Light Grey (Component A:beige; Comp. B:black)
<b>Density</b>	: 1,70 kg/l at 20 °C

### WORKING AND HARDENING TIMES

Base Material Temperature	°C	0	5	10	15	20	25	30	35
<b>Working Time</b>	<b>min</b>	25	15	12	8	6	4	3	2
<b>Loading Time</b>	<b>min</b>	180	120	90	60	45	30	20	15

### NUMBER OF ANCHORS BY DIAMETER

ANCHOR ROD	Installation in hollow structures			
	Sleeve 16/85		Sleeve 16/130	
	300 ml	345 ml	300 ml	345 ml
<b>M8</b>	12	13	8	9
<b>M10</b>	12	13	8	9
<b>M12</b>	12	13	8	9

ANCHOR	Installation of rods in concrete	
ROD	300 ml	345 ml
M8	70/80	80/90
M10	40/45	45/50
M12	24/27	27/30
M16	12/14	14/16
M20	5/6	6/7

#### PERFORMANCE DATA FOR RODS INTO HOLLOW STRUCTURES

Anchor		Drill depth				Admissible Loads			
Sleeve	Rod Class 5.8	Drill diameter $d_0$	Drill depth	Embedment depth $h_{ef}$	Torque moment $T_{inst}$	Perforated brick $f_{cm} = 4,5$ MPa		Cavity block of concrete $f_{cm} = 6,0$ MPa	
		mm	mm	mm	N.m	Tensile (kN)	Shear (kN)	Tensile (kN)	Shear (kN)
16/85	M8	17	90	85	4	0,4	1,10	-	-
16/85	M10	17	90	85	4	0,4	1,10	-	-
16/85	M12	17	90	85	4	0,4	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

#### PERFORMANCE DATA FOR RODS INTO CONCRETE

Anchor					Resistance	Admissible Loads		
Rod Class 5.8	Drill diameter $d_0$	Embedment depth $h_{ef}$	Standart edge distance $C_{cr}$	Standart anchor distance $S_{cr}$	Torque moment $T_{inst}$	Characteristic resistance $N_{rk}$	Concrete C20/25	Concrete C20/25
	mm	mm	mm	mm	N.m	Tensile (kN)	Tensile (kN)	Shear (kN)
M8	10	80	80	160	10	12,9	4,3	5,8
M10	12	90	90	180	20	19,7	6,6	9,2
M12	14	110	110	220	40	32,8	10,9	13,4
M16	18	125	125	250	60	44,6	14,9	24,9
M20	24	170	170	340	100	75,8	25,3	39,2

#### MECHANICAL CHARACTERISTICS

	Units	Standart	Average Value
Compressive Strength	$N/mm^2$	ASTM D695	65
Compressive Modulus	$N/mm^2$	ASTM D695	6000