

Intended use or uses of the construction product according to ETAG 029 Edition April 2013	
Generic type	Injection anchor for use in Masonry
Base material	Perforated ceramic blocks (LD) type HLz, 12/09 N+F, class $\geq 15$  (tested $f_b \geq 18 \text{ N/mm}^2$ ) density $q_m \geq 900 \text{ kg/m}^3$ EN 771-1
Material	<u>Anchor rod</u> Carbon steel class 5.8, EN ISO 898-1, zinc plated $\geq 5 \mu\text{m}$ , EN ISO 4042 <u>Washer</u> Carbon steel, zinc plated $\geq 5 \mu\text{m}$ , EN ISO 4042 <u>Hexagonal nut</u> Carbon steel class 5, EN 20898-2, zinc plated $\geq 5 \mu\text{m}$ , EN ISO 4042 <u>Perforated sleeve</u> Polyethylene 16 X 85 <u>Chemical Anchor</u> - EASF
Durability	50 years
Loading	Static and quasi static in perforated masonry
Service temperature range	<i>The anchor may be used in the following service temperature range: <math>-40^\circ\text{C}</math> to <math>+80^\circ\text{C}</math>(max long term temperature <math>+50^\circ\text{C}</math> and max short term temperature <math>+80^\circ\text{C}</math>).and max short term temperature <math>+80^\circ\text{C}</math>)</i>
Use category	in wet substrate (installation), in structures subject to dry, internal conditions – category w/d (use)
Fire Resistance	Class A1
Fire Reaction	Class A1
ETA - 11/0031 issued by	ITB POLAND
On the basis of	ETAG 029 Edition April 2013

## Declared performances according to ETAG 029

Essential Characteristics	Performance
	M10

### Installation parameters of anchor rods with perforated sleeves

Size		M10
Size of rod	$d_{nom}$ [mm]	10
Size of sleeve	$d_s \times l_s$ [mm]	16 x 85
Drill hole diameter	$d_o$ [mm]	16
Depth of drilled hole to deepest point	$h_1$ [mm]	90
Effective anchorage depth	$h_{ef}$ [mm]	85
Torque moment	$T_{inst}$ [Nm]	4

### Maximum processing times and minimum curing times of CHEMFIX EASF resin mortar

Masonry temperature [°C]	Maximum processing (working) time [Minutes]	Minimum curing (loading) time [Minutes]
-5	50	90
5	18	30
15	8	20
25	3	20
35	2	20

### Characteristic tension load and shear load values

Brick parameters: Density q [kg/m <sup>3</sup> ]  Compressive strength f <sub>b</sub> [N/mm <sup>2</sup> ]	Sleeve	Anchor size	Effective anchorage depth h <sub>ef</sub> [mm]	Characteristic resistance N <sub>Rk</sub> [kN] <sup>1)</sup>	Characteristic resistance V <sub>Rk</sub> [kN] <sup>2), 3)</sup>
q ≥ 900	16 x 85	M10	85	3,50	1,25
f <sub>b</sub> ≥ 12					
Partial safety factor γ <sub>M</sub> = 2,5 <sup>4)</sup>					

1) For design according to ETAG 029, Annex C  $N_{Rk} = N_{Rk,p} = N_{Rk,b} = N_{Rk,pb} = N_{Rk,s}$

2) For design according to ETAG 029, Annex C  $V_{Rk} = V_{Rk,b} = V_{Rk,c} = V_{Rk,s}$

3)  $V_{Rk}$  calculated according to ETAG 029 (Edition April 2013), Annex C, Section C.5.2.2.5

4) In absence of other national regulations

## Characteristic bending moment

Characteristic bending moment	$M_{Rk,s}$ [Nm]	37,4
Partial safety factor	$\gamma_{Ms}$	1,25 <sup>1)</sup>

1) if no other national regulations exist

## Displacements under tension and shear load

N [kN]	$\delta_{NO}$ [mm]	$\delta_{N\infty}$ [mm]	V [kN]	$\delta_{VO}$ [mm]	$\delta_{V\infty}$ [mm]
1,3	0,06	0,25	2,0	0,9	2,4

## $\beta$ -factor for job site tests according to ETAG 029, Annex B

Temperature	$\beta$ -factor
-40°C to 80°C	$0,86 \times 0,94 = 0,81$

## Edge distances and spacings

Size $d_{nom} + \Phi d \times L$ [mm]	$s_{cr}$ [mm]	$s_{min}$ [mm]	$c_{min}$ [mm]
10 + $\Phi 16 \times 85$	$l_{unit, max}$	$l_{unit, max}$	$c_{min} \geq 100$

$l_{unit, max}$  – maximal length of masonry unit

The performances of the product identified by the above identification code are in conformity with the declared performance.

This declaration of performance is issued under the sole responsibility of Chemfix Products Ltd.

Signed for and behalf of the manufacturer by:

Name and functions	Place and date of issue	Signature
EMANUEL GHERMANSCHI- LUNGU PRODUCT ENGINEERING MANAGER	DEWSBURY 04.01.2021	