

TECHNICAL DATASHEET

AnchorFast Polyester Based Chemical Anchor

Description & Uses

AlphaChem AnchorFast is a high quality styrene based chemical anchor supplied in an easy to use cartridge, suitable for application in standard cartridge applicator guns.

Designed for heavy load applications where a high strength bond is required.

Benefits

- CE certified Option 7 for application with threaded bars with non-cracked concrete, remains crack free, in the vicinity of the anchor, throughout the design life under all design load considerations.
- Forms a water impermeable joint.
- Allows fixing close to the edges due to the no expansion effect.
- It does not modify the external appearance of the support.
- Also suitable as a repair resin or adhesive resin for concrete components.
- Class A+ for emission of organic compounds (VOC's) for inside spaces.

Application

- Suited for fixing medium and heavy loads on solid and hollow supports: concrete, solid and hollow bricks. For example, gate hinges, satellite dishes etc.
- Suitable for wood and metal carpentry, for fixings of facades, railings, grills, sanitary fittings, pipe connections, and for fixings of hinges for wood and aluminium doors and frame sections.

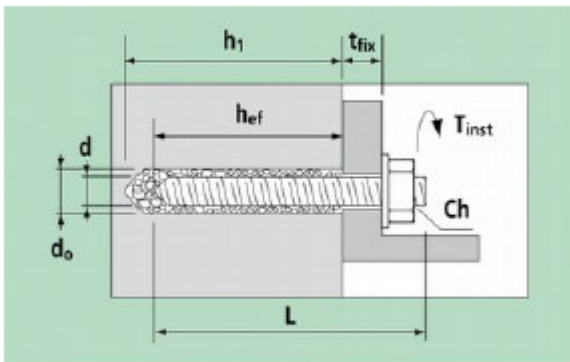
Directions

- Unscrew the cap and cut the top off the bag just under the metal clamp.
- Attach the mixer nozzle and place cartridge into an AlphaChem Professional Heavy Duty Applicator gun.
- Gradually press the trigger until the product starts to pass through the mixer nozzle. Once the product extruded from the nozzle is of an even colour (approx. 5.5 inches) it is ready to be used.
- Apply into holes as demonstrated on the application guide on the side of the packaging.



Time & Temperatures

Temperature of base material	Working Time	Full Curing
+5 °C	15 min	120 min
+5 to +10 °C	10 min	120 min
+10 to +20 °C	5 min	80 min
+20 to +30 °C	3 min	45 min
+30 to +35 °C	1.5 min	25 min
+35 °C	1.5 min	20 min



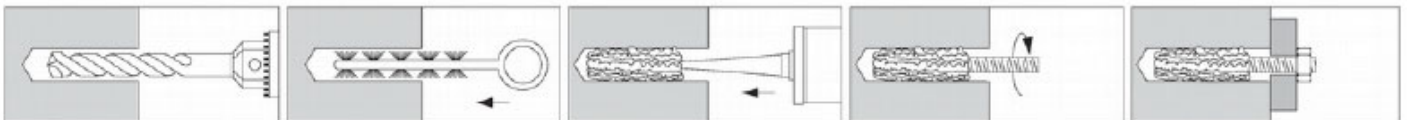
Key

- d = bar diameter
- L = bar length
- T_{fix} = fixable thickness
- d_0 = hole diameter
- h_1 = minimum hole depth
- h_{nom} = setting depth
- h_{ef} = effective anchorage depth
- T_{inst} = tightening torque

Use without sleeve: $h_{ef} = h_1 = h_{nom}$

Use on concrete

Installation



Setting Parameters

Bar size		M8	M10	M12	M16	M20	M24
Hole diameter	d_0 mm	10	12	14	18	22	28
Hole depth	H_{ef} mm	80	90	110	125	170	210
Minimum spacing	S_{min} mm	40	50	60	80	100	120
Minimum edge distance	C_{min} mm	40	50	60	80	100	120
Min. base mat. thickness	H_{min} mm	110	120	140	160	215	260
Tightening torque	T_{inst} mm	10	20	40	80	150	200

Strength data

Valid for a single anchor far from the edges, on a thick concrete member of class C20/25

Characteristic resistance (kN)

Bar size		M8	M10	M12	M16	M20	M24
Tension	N _{Rk}	18	29	35	60	75	115
Shear	V _{Rk}	9	15	21	39	61	88

Design resistance (kN)

Bar size		M8	M10	M12	M16	M20	M24
Tension	N _{Rd}	12	19.3	19.4	33.3	41.7	63.9
shear	V _{Rd}	7.2	12.0	16.8	31.2	48.8	70.4

Recommended load (kN)

Bar size		M8	M10	M12	M16	M20	M24
tension	N _{rec}	8.6	13.8	13.9	23.8	29.8	45.6
shear	V _{rec}	5.1	8.6	12.0	22.3	34.9	50.3

1kN = 100 kg

Steel failure, class 5.8

Parameters for design

Critical distances and spacing

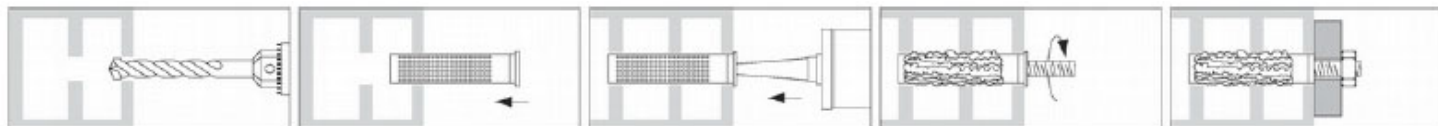
Bar size		M8	M10	M12	M16	M20	M24
Critical Spacing	S _{cr,N} mm	160	180	220	250	340	420
	S _{cr,sp} mm	320	360	440	375	510	630
Critical Edge Distance	C _{cr,N} mm	80	90	110	125	170	210
	C _{cr,sp} mm	160	180	220	188	255	315

Increasing factors for concrete strength (excluding steel failure)

Ψ_c	C30/37	1.12
	C40/50	1.23
	C50/60	1.30

Use on Masonry (not included in certification)

Installation



Setting parameters

Bar size			M6	M8	M10	M12
Use without sleeve on solid brick	Hole diameter	do mm	8	10	12	16
	Hole depth	hef mm	65	85	95	115
Use with sleeve on solid or hollow bricks	Sleeve		BR12x50	BR16x85	BR16x85	BR20x85
	Hole diameter	do mm	12	16	16	20
	Hole depth	h1 mm	55	90	90	90
Tightening torque		Tinst Nm	3	6	6	6

Brick types		Solid Brick	Hollow Brick
Minimum spacing	Smin mm	100	200
Minimum edge distance	Cmin mm	200	250

Strength data

Valid for a single anchor far from the edges.

Recommended load on hollow brick (kN)

Bar size		M8	M10	M12
Tension	N _{racc}	0.65	0.65	0.65
Shear	V _{racc}	1.60	1.60	1.60

Recommended load on solid brick (kN) tension, shear or oblique

Resistance class f _b (N/mm ²)	M8	M10	M12	M16
20.5	1.4	2.9	4.0	5.0
7.0	0.6	1.3	2.0	3.0
3.5	0.5	0.9	1.1	-
2.8	0.4	0.7	0.9	-

Load values derive from tests conducted according to international guidelines.

Storage

Store in cool, dry conditions, away from direct sunlight. Ideally store between +5°C & +25°C.

Cartridge temperature: between +5 and 25 °C

Installation temperature: between +5 and 35 °C

Work temperature: between -40 and + 40 °C (maximum short term temp. +40 C; long term +24 °C)

Shelf life

12 months (storage temp. +5 to +25 °C).

Limitations

As Cromar cannot know all the uses its products may be put to, it is the user's responsibility to ensure suitability for use. Consult Safety Data Sheet before use.

Further Information:

In the event of further queries or problems concerning the use of this product, please contact the address below, e-mail info@cromar.uk.com.

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