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Quality for Professionals

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# CF850

**CHEMICAL ANCHOR**  
**POLYESTER RESIN**



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**POLYESTER RESIN**

## INSTRUCTIONS FOR USE

**PROFI POWER COMES FROM PATTEX**

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# CHEMICAL ANCHOR CF850

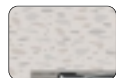
STYRENE-FREE POLYESTER RESIN ANCHORING works in solid or hollow materials and places where expandable dowels can not be used.

## POLYESTER TECHNOLOGY

Polyester is the classic reactive resin used for the production of 2-component mortar, whereby both unsaturated polyester resins dissolved in styrene and styrene-free unsaturated polyester resins with styrene-related monomers as a reactive solvent are used. The Pattex CF850 mortar is styrene-free and developed for the structural chemical bonding to fixate mechanical elements to a mineral construction.

## USAGE INSTRUCTIONS

### UNDERSURFACE: CONCRETE, SOLID STONE



1. drill hole with percussion drill



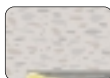
2. clean drill hole (4x blow out 4x brush out 4x blow out)



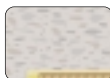
3. screw mixer to cartridge



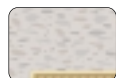
4. squeeze out approx. 10 cm of compound before use



5. fill drill hole from bottom upward



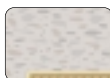
6. screw in reinforcement bar or threaded rod



7. visual check of mortar filling



8. observe correct hardening time



9. install component, apply torque

### UNDERSURFACE: HOLLOW BRICK



1. drill hole without percussion drill



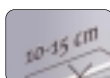
2. clean drill hole (2x blow out 2x brush out 2x blow out)



3. insert sleeve collar



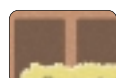
4. screw mixer to cartridge



5. squeeze out approx. 10 cm of compound before use



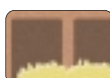
6. fill in composite mortar fully from end of sleeve collar



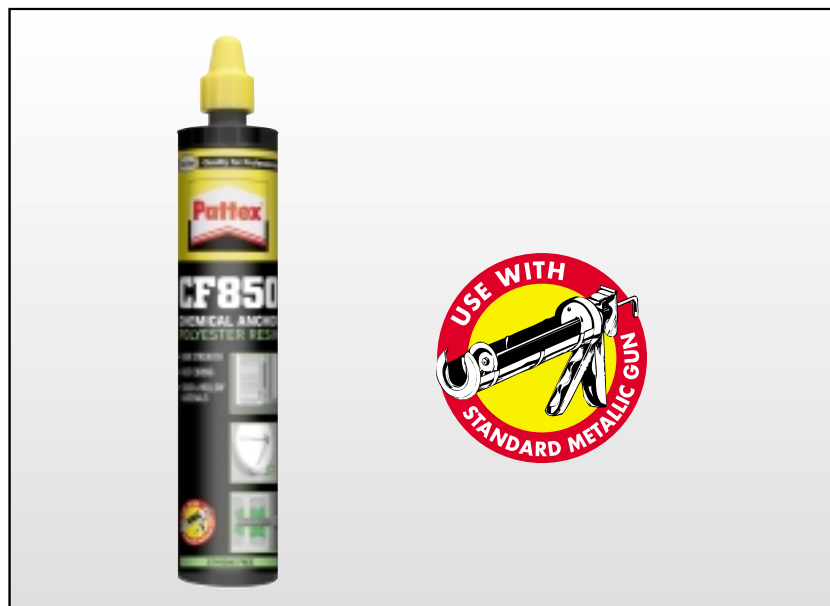
7. push in anchoring element, turning slightly, as far as base of collar



8. observe correct hardening time



9. install component, apply torque



### MINIMUM CURING TIME

STATIC CARTRIDGES	CURING START	CURING END
+ 5 °C	25 min	120 min
+ 10 °C	15 min	80 min
+ 20 °C	6 min	45 min
+ 30 °C	4 min	25 min
+ 35 °C	2 min	20 min



Xi = Irritant



O = Oxidizing

**Hardener:**

- May cause fire.
- Irritating to skin.
- May cause sensitization by skin contact.
- Keep out of the reach of children.
- Keep container tightly closed in a cool place.
- Keep away from dirt, rust, alkalis, acids and accelerators.
- This material and its container must be disposed of in a safe way.
- Wear suitable protective clothing, gloves and eye/face protection.
- If swallowed, seek medical advice immediately and show this container or label.
- Don't mix with accelerators for peroxides or reducing agents.
- Contains Dibenzoyl peroxide.

**Resin:**

- Irritating to eyes and skin.
- May cause sensitization by skin contact.
- Keep out of the reach of children.
- Avoid contact with skin and eyes.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- This material and its container must be disposed of in a safe way.
- Wear suitable protective clothing, gloves and eye/face protection.
- If swallowed, seek medical advice immediately and show this container or label.
- Contains 2-Hydroxyethyl methacrylate.



# CF850



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PERFORMANCE DATA / CONCRETE

Performance data determined in accredited Chemofast testing laboratory

PERFORMANCE DATA / CONCRETE							
Load	Plug diameter [mm]	M8	M10	M12	M16	M20	
	Concrete B25	F <sub>rec.</sub> [kN]	4,7	6,4	9,2	10,5	11,8
	Concrete B15		3,6	5,0	7,1	8,1	9,1
	Concrete PB2		1,2	1,2	1,2	-	-

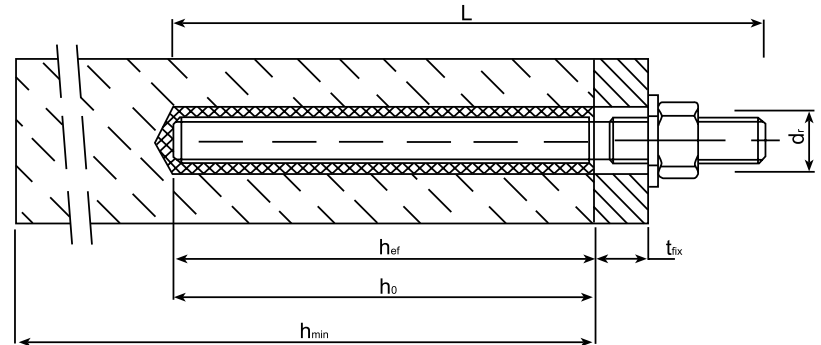
F<sub>rec.</sub> [kN] = incl. safety factor calculated to ETAG.  
 Values valid for anchor rods 5.8, zinc galvanised / A4-70

PERFORMANCE DATA / HOLLOW BRICK

PERFORMANCE DATA / HOLLOW BRICK							
Recommend load (tension, transverse and angular tension at any angle)	Plug diameter [mm]		M6	M8	M10	M12	
	Hollow brick	F <sub>rec.</sub> [kN] ≥ Hlz 4		0,3	0,3	0,3	0,3
		F <sub>rec.</sub> [kN] ≥ Hlz 6		0,4	0,4	0,4	0,4
		F <sub>rec.</sub> [kN] ≥ Hlz 12		0,7	0,8	0,8	0,8
	Sand-lime hollow brick	F <sub>rec.</sub> [kN] ≥ KSL 4		0,3	0,4	0,4	0,4
		F <sub>rec.</sub> [kN] ≥ KSL 6		0,4	0,6	0,6	0,6
		F <sub>rec.</sub> [kN] ≥ KSL 12		0,7	0,8	0,8	0,8
	Light concrete hollow brick	F <sub>rec.</sub> [kN] ≥ Hbl 4		0,5	0,6	0,6	0,6
	Concrete hollow brick	F <sub>rec.</sub> [kN] ≥ Hbn 4		0,5	0,6	0,6	0,6

INSTALLATION PARAMETERS

Anchor size		M8	M10	M12
Nominal drill hole diameter	d <sub>0</sub> [mm] =	10	12	14
Cutting diameter of drill bit	d <sub>cut</sub> [mm] ≤	10,5	12,5	14,5
Depth of drill hole	h <sub>0</sub> [mm] ≥	80	90	110
Diameter of clearance hole in the fixture	d <sub>i</sub> [mm] ≤	10	12	14
Diameter of steel brush	d <sub>b</sub> [mm] ≥	12	14	16
Torque moment	T <sub>inst</sub> [Nm]	10	20	40
Thickness of fixture	min t <sub>fix</sub> [mm] >	0	0	0
	max t <sub>fix</sub> [mm] <	1400	1400	1380
Minimum thickness of member	h <sub>min</sub> [mm]	120	130	160
Minimum spacing	s <sub>min</sub> [mm]	80	90	110
Minimum edge distance	c <sub>min</sub> [mm]	40	45	55



## CHEMICAL ANCHORS ARE BASED ON TWO DIFFERENT TYPES OF CHEMICAL SYSTEMS:

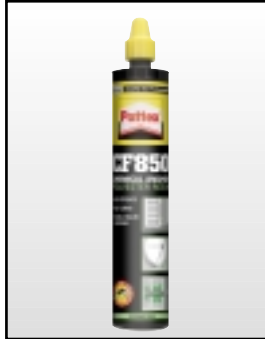
### REACTION RESIN MORTAR SYSTEM

- Materials**
- ▶ for use in various solid stones
  - ▶ concrete
  - ▶ hollow brick
- Boring Method** ▶ can be used only in rough hammer-drilled holes
- Drill Holes** ▶ suitable for drill holes with a gap of up to 2mm between anchor and substrate (due to shrinkage)
- Curing time** ▶ fast



#### UNSATURATED POLYESTER Pattex CF800

- Meets basic expectations for all general applications
- Highest shrinkage
- Lowest loads
- Limited chemical resistance
- Not recommended for wet and water-filled drill holes



#### STYRENE FREE POLYESTER Pattex CF850

- Meets basic expectations for all general applications
- Limited chemical resistance
- Not recommended for wet and water-filled drill holes



#### VINYLESTER Pattex CF900

- Certified as fire resistant up to F 120
- Very good thermal and mechanical properties
- Highest chemical resistance of the reaction resins
- Suitable for wet and water-filled drill holes
- National and European approvals for brickwork and concrete

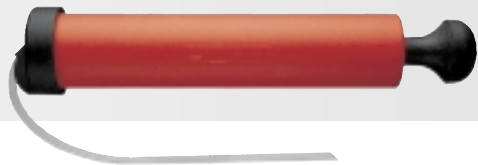
### EPOXID SYSTEM

- Materials**
- ▶ for use only in solid materials
  - ▶ for underwater and wet applications
  - ▶ for highest performance under all conditions
- Boring Method** ▶ for use in smooth, diamond-drilled holes
- Drill Holes** ▶ suitable for drill holes with a gap of up to 4mm between anchor and substrate (due to shrinkage)
- Curing time** ▶ slow



#### PURE EPOXY Pattex CF1000

- Newest technology
- Highest chemical resistance & highest strength of all four systems
- Can even be used underwater
- NO shrinkage
- More flexible in elevated temperatures



**PATTEX CLEANING PUMP**



**PATTEX NYLON-CYLINDER-BRUSH**  
with woodhandle for hollow materials



**PATTEX WIRE BRUSH**  
with M6 steel thread, for anchor rods  
M8 115x80x12mm / M10 115x80x14mm



**PATTEX SLEEVES**  
13x100mm / 15x100mm



**PATTEX STANDARD ANCHOR RODS**  
M8x100 / M10x110, quality 5.8



**PATTEX SPECIAL STATIC MIXER**



**PATTEX UNIVERSAL GUN**  
can be used with:

- Foil tube 300ml
- Peeler 280ml
- Coaxial 150ml, 380ml, 410ml
- Side by side 385ml