

## SOUDAFIX P300-SF

Revision: 25/06/2021

Page 1 of 6

**Technical Data:**

Base	Polyester, styrene free			
Consistency	Stable paste			
Curing system	Chemical reaction			
Full Curing Time (20°C/65% R.H.)	<u>Temp. substrate</u>	<u>Working time</u>	<u>Dry substrate</u>	<u>Moist substrate</u>
	-5°C	90 min	360 min	720 min
	0°C	45 min	180 min	360 min
	5°C	25 min	120 min	240 min
	10°C	15 min	80 min	160 min
	20°C	6 min	45 min	90 min
	30°C	4 min	25 min	50 min
	35°C	2 min	20 min	40 min
Specific Gravity	1,74 g/cm <sup>3</sup>			
Temperature Resistance	-40 °C to + 80°C			
Dynamic elasticity modulus	4.000 N/mm <sup>2</sup>			
Maximum bending tensile strength	30 N/mm <sup>2</sup>			
Maximum compression strength	75 N/mm <sup>2</sup>			

**Product:**

SOUDAFIX P300-SF is a two-component anchoring resin for the pressure-free securing of threaded rods (ETA: M8 - M24), studs, reinforcing bars, threaded collars, profiles etc in various solid and hollow materials, such as uncracked concrete, aerated concrete, solid or hollow brick, porous concrete, natural stone, plasterboard walls, etc...

**Characteristics:**

- Easy to use and to apply
- Can be applied with standard caulking gun
- Fast cure
- Styrene free (low odour)
- Wide application area even in wet boreholes
- Overhead application
- Cartridge re-usable by simply exchanging static mixer
- Ideal for anchoring in hollow brick in combination with sleeves
- Watertight and impermeable fixing
- European Technical Assessment ETA 11/0447 based on ETAG 001 Part 1 and 5 for application in uncracked concrete
- European Technical Assessment ETA 13/0064 based on ETAG 029 for application in masonry

**Application area:**

Securing of heavy loads in solid and hollow building materials. Pressure free anchoring even close to edges.

**Packaging:**

*Colour:* dark grey after mixing

*Cartridge:* 280 ml and 300 ml for use with standard caulking gun, 410 ml with special gun.

**Shelf life:**

18 months in original packaging. Store at cool and dry place at temperatures between +5°C en +25°C.

Remark: The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments.

---

**SOUDAFIX P300-SF**

---

**Revision: 25/06/2021****Page 2 of 6****Substrates:**

*Type:* All usual porous building substrates, poor adhesion on smooth non-porous materials.

*State:* Clean, dry, free of dust and grease

*Treatment:* no particular treatment of substrate needed. In hollow materials the use of sleeves is necessary.

**Application**

*Application method:* two-component gun

*Application temperature:* -5°C to +39°C

*Clean:*

Before cure: wipe off excess of product and clean afterwards with white spirit or acetone

After cure: it is recommended to let the product fully cure, so that it can easily be removed mechanically with hammer and chisel.

*Repair:* with the same material

**Safety recommendations:**

Apply the usual industrial hygiene precautions.

Only use in well ventilated spaces.

Consult the label for more information.

**Remarks:**

There is a risk of staining on porous substrates such as natural stone. On such substrates a preliminary compatibility test is recommended.

**Instructions for use:**

- Drill hole at recommended depth
- Clean drill hole with brush and air pump thoroughly
- Screw static mixer onto cartridge
- Dispense the first 10 cm of the product to waste (on piece of cardboard) until an even colour (dark grey) is achieved, and the product is well mixed
- Solid stone: fill the drill hole from bottom up. Hollow brick: insert sleeve and fill it bottom up, so that the resin is pressed through the tiny holes of the sleeve
- Insert anchoring rod with twisting left-right motion
- Inspect the drill hole for adequate filling
- Observe hardening time. Don't move the anchoring rod during curing
- Leave the excess of product to cure as well. Remove it mechanically with hammer and chisel once cured
- Install component, applying the right torque

Remark: The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments.

## SOUDAFIX P300-SF

Revision: 25/06/2021

Page 3 of 6

### Installation parameters for threaded rods in uncracked concrete:

Diameter threaded rod	d	mm	M8	M10	M12	M16	M20	M24
Drill diameter	$d_0$	mm	10	12	14	18	24	28
Min. anchorage depth	$h_{ef,min}$	mm	60	60	70	80	90	96
Max. anchorage depth	$h_{ef,max}$	mm	160	200	240	320	400	480
Edge distance	$c_{cr,N}$	mm	80	90	110	125	170	210
Min. edge distance	$c_{min}$	mm	40	50	60	80	100	120
Axial distance	$s_{cr,N}$	mm	160	180	220	250	340	420
Min. axial distance	$s_{min}$	mm	40	50	60	80	100	120
Min. thickness of member	$h_{min}$	mm	$h_{ef} + 30 \text{ mm}$ $\geq 100 \text{ mm}$			$h_{ef} + 2 d_0$		
Tightening torque	$T_{inst}$	Nm	10	20	40	60	120	160

### Installation parameters for threaded rods in masonry:

Diameter threaded rod	d	mm	M8	M10	M12	M16
Drill diameter	$d_0$	mm	12	16	20	20
Depth sleeve	$h_{nom}$	mm	80	85	85	85
Anchorage depth	$h_{ef}$	mm	80	85	85	85
Edge distance	$c_{cr,N}$	mm	250			
Min. edge distance	$c_{min}$	mm	250			
Axial distance	$s_{cr,N, single}$	mm	250			
Tightening torque	$T_{inst}$	Nm	2			

Remark: The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments.

## Soudafix P300-SF

Revision: 25/06/2021

Page 4 of 6

Table C1: Characteristic values for tensile strength of threaded rods in uncracked concrete									
Diameter threaded rods				M8	M10	M12	M16	M20	M24
<b>Steel failure</b>									
Characteristic tensile strength		$N_{Rk,s}$	kN	$A_s \times f_{uk}$					
<b>Combined pullout and concrete cone failure</b>									
Characteristic tensile strength in uncracked concrete C20/25									
Temperature range I: 40°C / 24°C	Dry and wet concrete	$T_{Rk,unr}$	N/mm <sup>2</sup>	8,5	8,0	8,0	8,0	8,0	8,0
	Flooded bore hole	$T_{Rk,unr}$	N/mm <sup>2</sup>	8,5	8,0	8,0	8,0	8,0	8,0
Temperature range II: 80°C / 50°C	Dry and wet concrete	$T_{Rk,unr}$	N/mm <sup>2</sup>	6,5	6,0	6,0	6,0	6,0	6,0
	Flooded bore hole	$T_{Rk,unr}$	N/mm <sup>2</sup>	6,5	6,0	6,0	6,0	6,0	6,0
Increasing factors for uncracked concrete $\Psi_c$		C25/30		1,04					
		C30/37		1,08					
		C35/45		1,13					
		C40/50		1,15					
		C45/55		1,17					
		C50/60		1,19					
Factor according CEN/TS 1992-4-5 Section 6.2.2.3		$k_g$	-	10,1					
<b>Concrete cone failure</b>									
Factor according CEN/TS 1992-4-5 Section 6.2.3.1		$k_{ucr}$	-	10,1					
Edge distance		$c_{cr,N}$	mm	1,5 $h_{ef}$					
Spacing		$s_{cr,N}$	mm	3,0 $h_{ef}$					
<b>Splitting failure</b>									
Edge distance		$c_{cr,sp}$	mm	$1,0 \cdot h_{ef} \leq 2 \cdot h_{ef} (2,5 - h/h_{ef}) \leq 2,4 \cdot h_{ef}$					
Spacing		$s_{cr,sp}$	mm	2 $c_{cr,sp}$					
Installation safety factor (dry and wet concrete)		$\gamma_2 = \gamma_{inst}$		1,2					
Installation safety factor (flooded bore hole)		$\gamma_2 = \gamma_{inst}$		1,2					

Remark: The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments.

## SOUDAFIX P300-SF

Revision: 25/06/2021

Page 5 of 6

Table C2: Characteristic values for shear loads in uncracked concrete								
Diameter threaded rod	M8	M10	M12	M16	M20	M24		
<b>Steel failure without lever arm</b>								
Characteristic values for shear loads	$V_{RkS}$	kN	$0,5 \times A_s \times f_{uk}$					
Ductility factor according CEN / TS 1992-4-5 Section 6.3.2.1	$k_2$	-	0,8					
<b>Steel failure with lever arm</b>								
Characteristic bending moment	$M_{RkS}^0$	Nm	$1,2 \times W_{el} \times f_{uk}$					
<b>Concrete pryout failure</b>								
Factor $k_3$ in equation (27) of CEN/TS 1992-4-5 Section 6.3.3	$k_{(3)}$	-	2,0					
Factor k in equation (5.7) of TR029								
Installation safety factor	$\gamma_2 = \gamma_{inst}$	-	1,0					
<b>Concrete edge failure</b>								
Effective anchor length	$l_f$	mm	$l_f = \min(h_{ef}; 8 d_{nom})$					
Outside diameter of anchor	$d_{nom}$	mm	8	10	12	16	20	24
Installation safety factor	$\gamma_2 = \gamma_{inst}$	-	1,0					

Remark: The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments.

## SOUDAFIX P300-SF

Revision: 25/06/2021

Page 6 of 6

Table C3: Characteristic tensile and shear strengths of threaded rods in masonry					
Hollow clay brick, Compressive strength $\geq 6 \text{ N/mm}^2$			Characteristic strength <sup>1)</sup>		
			40°C/24°C	80°C/50°C	All temperatures
Sleeve	Diameter threaded rod	Anchor depth $h_{ef}$ (mm)	Tensile $N_{Rk} \text{ (kN)}^2$	Tensile $N_{Rk} \text{ (kN)}^2$	Shear $V_{Rk} \text{ (kN)}^3$
SH 12x80	M8	80	Ca. 0,5 - 0,75	Ca. 0,3 - 0,5	Ca. 2,0 - 2,5
SH 16x85	M10	85	Ca. 1,2 - 1,5	Ca. 0,75 - 1,2	Ca. 2,0 - 4,0
SH 20x85	M12 / M16	85	Ca. 1,2 - 2,0	Ca. 0,75 - 1,5	Ca. 3,0 - 4,0
Hollow clay brick, Compressive strength $\geq 10 \text{ N/mm}^2$			Characteristic strength <sup>1)</sup>		
			40°C/24°C	80°C/50°C	All temperatures
Sleeve	Diameter threaded rod	Anchor depth $h_{ef}$ (mm)	Tensile $N_{Rk} \text{ (kN)}^2$	Tensile $N_{Rk} \text{ (kN)}^2$	Shear $V_{Rk} \text{ (kN)}^3$
SH 12x80	M8	80	Ca. 1,2 - 2,0	Ca. 0,9 - 1,5	Ca. 3,0
SH 16x85	M10	85	Ca. 1,5 - 2,0	Ca. 0,9 - 1,5	Ca. 3,0 - 3,5
SH 20x85	M12 / M16	85	Ca. 1,5 - 2,0	Ca. 0,9 - 1,5	Ca. 3,5 - 4,0

<sup>1)</sup> Details per brick type see ETA 13/0064

<sup>2)</sup> For design according ETAG 029, Annex C:  $N_{Rk} = N_{Rk,p} = N_{Rk,b}$ ;  $N_{Rk,s}$  according Table C2 Annex C2; Calculation  $N_{Rk,pb}$  see ETAG 029, Annex C

<sup>3)</sup> For  $V_{Rk,s}$  see Annex C 2, Table C2; Calculation of  $V_{Rk,pb}$  and  $V_{Rk,c}$  see ETAG 029, Annex C

Remark: The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments.