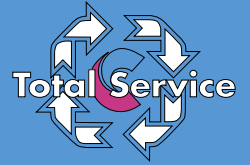


Polyester Styrene free resin



Product Information

Description

Chemfix PESF Low Odour Resin is a high performance, rapid curing two part chemical anchoring system based on a modified Polyester resin in Methacrylate monomers. Applied in one single action this resin will produce a cost effective, strong, chemical resistant fixing.

Features

- Non-flammable
- Very low odour
- Chemical resistance
- Suitable for close edge applications
- Suitable for use in concrete, brickwork, stone & hollow structures
- Suitable for fixing wall ties, starter bars, studs, bolts & large screws
- Available in all cartridge sizes

Stud Data

Stud Thread Size (mm) (d)	HOLE DIAMETER IN CONCRETE (mm) (do)	HOLE DIAMETER IN FIXTURE (mm) (df)	STANDARD EMBEDMENT IN CONCRETE (mm) (bo)	RECOMMENDED TORQUE (Nm) (Tinst)
M8	10	9	80	11
M10	12	11	90	22
M12	14	13	110	38
M16	18	17	125	95
M20	24	22	170	170
M24	28	26	210	260

Hardening Time

Base Material Temperature (°C)	Gel Time mins	Min. Loading Time mins
25	3	30
15	6	35
5	12	50
-5	50	90

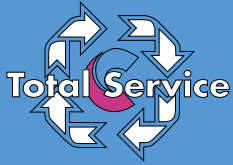
Specification Data

Performance Data at Standard Embedment Depth

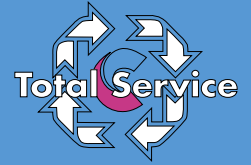
Size	Concrete, $f_{ck, cube} = 30N/mm^2$ (C20/25)								
	Characteristic Resistance (kN)		Design Resistance (kN)		Recommended Load (kN)		Characteristic Edge Distance (mm)		Characteristic Spacing (mm)
	Tension (N_{Rk})	Shear (V_{Rk})	Tension (N_{Rd})	Shear (V_{Rd})	Tension (N_{Rec})	Shear (V_{Rec})	Tension ($C_{cr,N}$)	Shear ($C_{cr,V}$)	
M8	20.2	10.1	8.1	8.1	5.8	5.8	80	100	100
M10	28.5	15.6	11.4	12.5	8.1	8.9	90	130	130
M12	40.5	23.1	16.2	18.5	11.6	13.2	110	150	150
M16	69.2	41.8	27.7	33.5	19.8	23.9	130	170	170
M20	89.9	66.8	40.7	53.5	29.1	38.2	150	190	210
M24	112.6	95.7	46.3	76.6	33.1	54.7	190	240	240

Performance Data in Hollow Substrate

Size	Recommended Load (kN) Tension or Shear (F_{ec})	
	Brickwork 20.5 N/mm ²	Blockwork 7 N/mm ²
M8	1.5	0.8
M10	3.0	1.5
M12	4.2	2.4
M16	5.1	3.2



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Reduction Factors – Edge and Spacing Distances

The full characteristic edge and spacing distances shown in the table above are the minimum allowable for the quoted DESIGN RESISTANCE or RECOMMENDED LOAD, depending on the design method used. Where these dimensions are not achievable, the appropriate reduction factor/s from the following tables

must be applied to the DESIGN RESISTANCE or RECOMMENDED LOAD. Choose the required bolt diameter across the top of the appropriate table and read down the left hand column until actual edge or spacing distance is found. Read off the reduction factor where the two lines intersect (interpolate as required). Multiply this

factor by the DESIGN RESISTANCE or RECOMMENDED LOAD quoted in the table. On the occasion that multiple close edge and/or spacing distances occur, the appropriate reduction factors must be applied.

Edge Distance (Concrete)

EDGE (mm)	TENSILE: EDGE REDUCTION FACTORS						
	M8	M10	M12	M16	M20	M24	M30
50	0.65						
60	0.70	0.67					
70	0.75	0.71					
80	1.00	0.76	0.69				
90		1.00	0.73	0.69			
100			0.76	0.72	0.64		
110			1.00	0.75	0.66		
125				1.00	0.70	0.64	
150					0.75	0.69	
170					1.00	0.72	
190						0.76	0.67
210						1.00	0.70
240							0.74
260							0.77
280							1.00

EDGE (mm)	SHEAR EDGE REDUCTION FACTORS						
	M8	M10	M12	M16	M20	M24	M30
60	0.65						
75	0.76	0.70					
90	0.88	0.80	0.69				
100	1.00	0.87	0.75	0.68			
115		0.97	0.83	0.75			
130		1.00	0.91	0.83	0.66		
150			1.00	0.92	0.73	0.63	
170				1.00	0.80	0.69	
190					1.00	0.74	
210						0.80	0.65
240						1.00	0.71
280							0.80
300							0.84
325							0.90
350							1.00

Spacing (Concrete)

EDGE (mm)	TENSILE: SPACING REDUCTION FACTORS						
	M8	M10	M12	M16	M20	M24	M30
50	0.66						
60	0.69						
70	0.72	0.69					
80	0.75	0.72					
90	0.78	0.75	0.70				
100	1.00	0.78	0.73	0.70			
115		0.82	0.76	0.73			
130		1.00	0.80	0.76	0.69		
150			1.00	0.80	0.72	0.68	
170				1.00	0.75	0.70	
190					0.78	0.73	
210					1.00	0.75	0.69
240						1.00	0.71
280							0.75
300							0.77
325							0.79
350							1.00

Ultimate physical properties

COMPRESSIVE STRENGTH	(ASTM 695)	- > 56 N/mm ²
TENSILE STRENGTH	(ASTM 638)	- < 10 N/mm ²
FLEXURAL STRENGTH	(ASTM 790)	- > 16 N/mm ²
ELASTIC MODULUS		- 3034 N/mm ²
FLEXURAL MODULUS		- 3462 N/mm ²
MIXED DENSITY		- 1,65 g/cm ³

Storage

Store in a dry area between 5°C and 25°C. Do not expose to direct sunlight. Storage at higher temperatures will reduce the shelf life.

Important

The information and data given is based on our own experience, research and testing and is believed to be reliable and accurate. However, as Chemfix Products cannot know the varied uses to which its products may be applied, or the methods of application used, no warranty as to the fitness or suitability of its products is given or implied. It is the users responsibility to determine suitability of use. For further information please contact our Technical Department.