



# Polyester Resin (Styrene Free)

Specification



JF380PSF



JFEA300SF



JF150P



### Product Information

The Polyester 2 Part Injection Resin is a general purpose resin in styrene free monomers. Suitable for solid brickwork, natural stone and concrete as well as hollow base materials using suitable sleeves. It can be used for installing Studs, Rebar and Internal Threaded Sockets in damp and dry conditions

### Features

1. Expansion free
2. Easy to dispense
3. Close Spacing and Edge Distance
4. Styrene Free

### Installation Data

Thread Diam mm	Drill Hole Diam mm	Hole Depth mm	Maximum Fixture Thickness mm	Fixture Clearance Hole mm	Minimum Structure Thickness mm	Maximum Tightening Torque Nm
8	10	80	9	10	100	10
10	12	90	11	12	120	20
12	14	110	13	14	140	40
16	18	125	17	18	160	80
20	22	170	22	22	220	150
24	28	210	26	26	260	200

### Setting Times

Base Material Temp +°C	Gel Time Min.	Load Time Mins.
5	18	145
5 to 10	10	145
10 to 20	6	85
20 to 25	5	50
25 to 30	4	40
+30	4	35

### Recommended Loads for Brick and Block

Thread Diam mm	Brick		Block	
	20 N/mm <sup>2</sup> Solid Brick Rec Load kN	Rec Torque Nm	7 N/mm <sup>2</sup> Solid Block Rec Load kN	Rec Torque Nm
8	1.5	4	0.9	3
10	3.0	7	1.4	6
12	4.2	11	2.5	10
16	5.1	25	4.0	23

### Resin Fixing per Cartridge

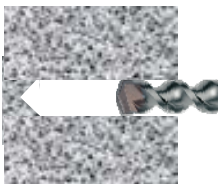
Thread Diam	Hole Diam mm	Hole Depth mm	380 ml	300 ml	150 ml
M8	10	80	110	68	30
M10	12	90	60	45	20
M12	14	110	40	26	12
M16	18	125	20	18	8
M20	25	170	9	9	4
M24	28	210	5	4	2

Loads are for any direction  
Maintain Spacing as per Concrete Loads but only 1 fixing per brick is recommended  
Do not fix closer than 1 brick away from a free edge

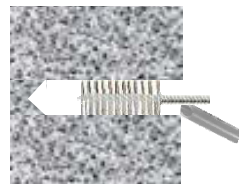
Due to the variable nature of Brickwork and Blockwork these figures are for guidance only. For critical applications a site test is recommended

### Installation Instructions

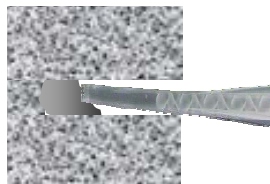
#### Solid Materials



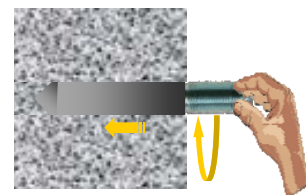
Drill correct diameter hole to correct depth



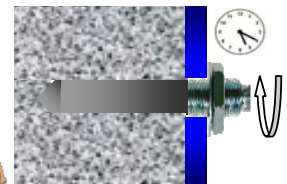
Clean hole by brushing and blowing to remove all dust and drilling debris



Attach nozzle following instructions on tube and fill hole 1/3rd full from bottom

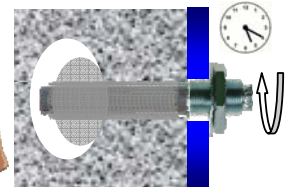
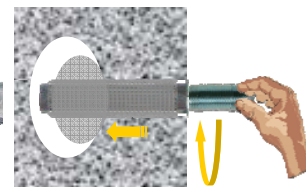
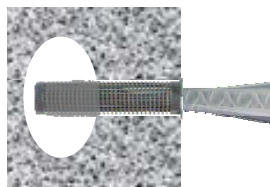
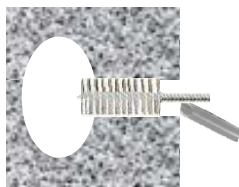
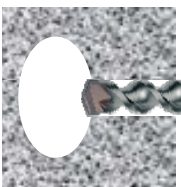


Insert stud rotating by hand



Allow resin to cure, attach fixture and tighten to Recommended Torque

#### Hollow Materials



For hollow materials insert perforated sleeve first and inject resin to fill sleeve. Filling sleeve from bottom to top



Performance Data (C20/25 Concrete)									
Thread Diam mm	Characteristic Resistance kN		Design Resistance kN		Recommended Resistance kN		Spacing mm	Edge Distance mm	
	Tensile	Shear	Tensile	Shear	Tensile	Shear	Tensile & Shear	Tensile	Shear
8	17.1	9.0	9.5	7.2	6.8	5.1	160	80	90
10	22.6	14.0	12.6	11.2	9.0	8.0	180	90	125
12	37.3	21.0	20.7	16.8	14.8	12.0	220	110	160
16	56.5	39.0	31.4	31.2	22.4	22.3	250	125	270
20	85.4	61.0	47.4	48.8	33.9	34.9	340	170	300
24	118.7	88.0	65.9	70.4	47.1	50.3	420	210	360

Shear Resistance towards a free edge is for single anchors where Spacing is  $\geq 3 \times$  Edge Distance  
 Loads are for JCP Grade 5.8 studs and Grade70 Stainless Steel Studs

Reduced Design Resistance (kN) • Divide Loads by 1.4 for Recommended Resistance

Edge mm	Edge Distance (C20/25 Concrete) for single anchors												Spacing mm	Spacing (C20/25 Concrete)					
	Tensile Resistance						Shear resistance							Tensile resistance per Pair of Anchors					
	M8	M10	M12	M16	M20	M24	M8	M10	M12	M16	M20	M24		M8	M10	M12	M16	M20	M24
40	6.2												80	14.3					
45	6.6	8.2											90	14.8	18.9				
50	7.0	8.7					4.0						100	15.4	19.6				
55	7.4	9.2	13.5				4.4						120	16.6	21.0	32.0			
60	7.8	9.7	14.1				4.8						130	17.2	21.7	32.9			
65	8.3	10.2	14.8	20.8			5.2	5.8					140	17.8	22.4	33.9	49.0		
70	8.7	10.6	15.4	21.7	27.9		5.6	6.3					150	18.4	23.1	34.8	50.2		
80	9.5	11.6	16.7	23.5	29.8		6.4	7.2	8.4				160	19.0	23.8	35.8	51.5		
90		12.6	18.1	25.2	31.8	39.5	7.2	8.1	9.5				170		24.5	36.7	52.8	71.1	
100			19.4	27.0	33.7	41.7		9.0	10.5				180		25.2	37.6	54.0	72.5	
110			20.7	28.8	35.7	43.9		9.9	11.6				190			38.6	55.3	73.9	
125				31.4	38.6	47.2		11.2	13.1	14.4			200			39.5	56.5	75.3	97.3
130					39.6	48.3			13.7	15.0			210			40.5	57.8	76.7	98.9
150					43.5	52.7			15.8	17.3	24.4		220			41.4	59.0	78.1	100.4
160					45.4	54.9			16.8	18.5	26.0		230				60.3	79.5	102.0
170					47.4	57.1				19.6	27.7		240				61.5	80.9	103.6
190						61.5				22.0	30.9	37.2	250				62.8	82.3	105.1
210						65.9				24.3	34.2	41.1	275					85.7	109.0
230										26.6	37.4	45.0	300					89.2	113.0
270										31.2	43.9	52.8	340					94.8	119.2
300											48.8	58.7	360						122.4
330												64.5	400						128.7
360												70.4	420						131.8

**Influence of concrete strength**

Concrete Strength		C20/25	C25/30	C30/37	C40/50	C50/60
Cylinder	N/mm <sup>2</sup>	20	25	30	40	50
Cube	N/mm <sup>2</sup>	25	30	37	50	60
Factor		1.00	1.10	1.19	1.25	1.3

When using concrete factors check all other information to ensure Steel Strength and Pull out Resistance is not exceeded

**Steel Design Resistance for single anchor**

		M8	M10	M12	M16	M20	M24	
Tension	kN	12.0	19.3	28.0	52.0	82.0	118.0	Grade 5.8
	kN	13.9	21.4	31.5	58.8	91.9	132.0	Stainless Steel Grade 70
Shear	kN	7.2	11.2	16.8	31.2	48.8	70.4	Grade 5.8
	kN	8.3	12.8	18.5	35.2	55.1	79.4	Stainless Steel Grade 70

**Anchor mechanical properties**

		M8	M10	M12	M16	M20	M24	
Nominal Tensile Strength	N/mm <sup>2</sup>	500	500	500	500	500	500	Zinc plated & H.D.G
		700	700	700	700	700	700	Stainless Steel
Yield Strength	N/mm <sup>2</sup>	400	400	400	400	400	400	Zinc plated & H.D.G
		450	450	450	450	450	450	Stainless Steel
Nut A/F	mm	13	17	19	24	30	36	
Washer Diam.	mm	16	21	24	30	37	44	