



**JFEA380SF**



### Product Information

The Epoxy Acrylate 2 Part Injection Resin is suitable for use in solid concrete, solid brickwork and natural stone as well as hollow base material using suitable sleeves. It can be used for installing studs, rebar and Internal Threaded Sockets in both wet and dry conditions

### Features

1. Expansion free
2. High Loads
3. Close Spacing and Edge Distance
4. Use in wet and dry Conditions

### Installation Data

Thread Diam mm	Drill Hole Diam mm	Hole Depth mm	Maximum Fixture Thickness mm	Fixture Clearance Hole mm	Minimum Structure Thickness mm	Tightening Torque Nm
8	10	80	9	10	100	7
10	12	90	11	12	120	11
12	14	110	13	14	140	25
16	18	125	17	18	160	50
20	25	170	22	22	220	115
24	28	210	26	26	260	140

### Setting Times

Base Material Temp °C	Gel Time Min.	Load Time Mins.
0	25	90
5	14	70
10	11	50
15	7	35
20	6	32
25	3	30

### Recommended Loads for Brick and Block

Thread Diam mm	Brick		Block	
	20 N/mm <sup>2</sup> Solid Brick		7 N/mm <sup>2</sup> Solid Block	
	Rec Load kN	Rec Torque Nm	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 mm	Hole Diam mm	Hole Depth mm	380 ml
8	10	80	110
10	12	90	60
12	14	110	40
16	18	125	20
20	25	170	9
24	28	210	5

Loads are for any direction

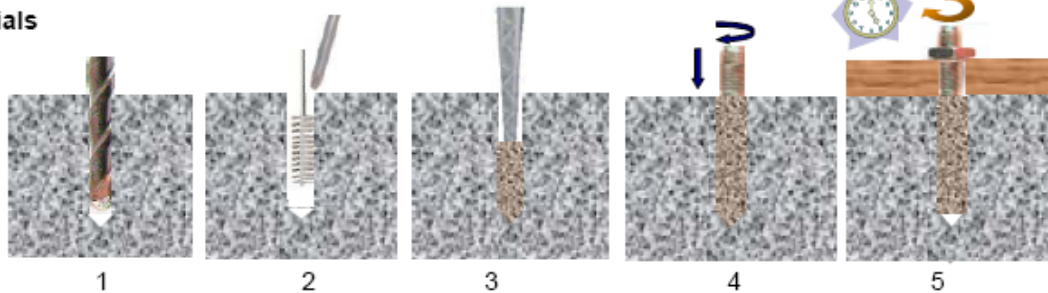
Maintain Spacing as per Concrete Loads but only 1 fixing per brick is recommended

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



1. Drill Hole of correct diameter and to correct depth
2. Clean hole by brushing and blowing to remove drilling debris and dust
3. Remove cap or cut top of inner sleeve and ensure both holes are clear. Attach nozzle and eject resin to waste until even mix is achieved then fill hole approximately 1/3rd full, filling from bottom
4. Insert stud rotating by hand to ensure an even distribution of the resin
5. Allow to cure, attach fixture and tighten to Recommended Torque



Performance Data (C20/25 Concrete)									
Thread Diam mm	Characteristic Resistance kN		Design Resistance kN		Recommended Load kN		Spacing	Edge Distance mm	
	Tensile	Shear	Tensile	Shear	Tensile	Shear	Tensile & Shear	Tensile	Shear
8	19.3	9.0	9.2	7.2	6.6	5.1	160	80	90
10	27.7	14.0	13.2	11.2	9.4	8.0	180	90	125
12	36.5	21.0	17.4	16.8	12.4	12.0	220	110	160
16	61.6	39.0	29.3	31.2	20.9	22.3	250	125	270
20	104.1	61.0	41.7	48.8	29.8	34.9	340	170	300
24	132.7	88.0	53.1	70.4	37.9	50.3	420	210	360

Shear Loads towards a free edge are for single anchors where Spacing ≥ 3 x Edge Distance

Loads are for JCP Grade 5.8 Studs and Grade 70 Stainless Steel Studs

### Reduced Design Resistance (kN)

Divide Loads by 1.4 for Recommended Loads

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	6.0												80	13.8					
45	6.4	8.6											90	14.4	19.8				
50	6.8	9.1					4.0						100	15.0	20.5	25.3			
55	7.2	9.6	11.3				4.4						120	16.1	22.0	26.9			
60	7.6	10.1	11.9				4.8						130	16.7	22.7	27.7	44.5		
65	8.0	10.6	12.4	19.5			5.2	5.8					140	17.3	23.5	28.5	45.7		
70	8.4	11.1	13.0	20.3	28.0		5.6	6.3					150	17.8	24.2	29.3	46.9		
80	9.2	12.2	14.1	21.9	29.7		6.4	7.2	8.4				160	18.4	24.9	30.1	48.1		
90		13.2	15.2	23.6	31.4	33.5	7.2	8.1	9.5				170		25.7	30.8	49.2	61.3	
100			16.3	25.2	34.0	35.5		9.0	10.5				180		26.4	31.6	50.4	62.6	
110			17.4	26.8	34.8	37.4		9.9	11.6				190			32.4	51.6	65.0	
125				29.3	38.3	40.4		11.2	13.1	14.4			200			33.2	52.7	66.2	78.4
130					40.0	41.4			13.7	15.0			210			34.0	53.9	67.5	79.7
150					41.7	45.3			15.8	17.3	24.4		220			34.8	55.1	68.7	80.9
160						47.2			16.8	18.5	26.0		230				56.3	69.9	82.2
170						49.2				19.6	27.7		240				57.4	71.1	83.4
190						53.1				22.0	30.9	37.2	250				58.6	72.4	84.7
210										24.3	34.2	41.1	275					75.4	87.9
230										26.6	37.4	45.0	300					78.5	91.0
270										31.2	43.9	52.8	340					83.4	96.1
300											48.8	58.7	360						98.6
330												64.5	400						103.7
360												70.4	420						106.2

### 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	1.22	1.41	1.55

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	92	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	