

## Product Information

### Description

Chemfix EA Resin is a high performance, rapid curing two part chemical anchoring system based on a modified Epoxy Acrylate resin in Styrene. Applied in one single action this specially formulated resin offers excellent protection in damp and corrosive applications.

### Features

- Suitable for underwater applications
- High 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

## Specification Data

### Performance Data at Standard Embedment Depth

Size	Concrete, $f_{ck, cube} = 30N/mm^2$ (C20/25)								Characteristic Spacing (mm)
	Characteristic Resistance (kN)		Design Resistance (kN)		Recommended Load (kN)		Characteristic Edge Distance (mm)		
	Tension ( $N_{Rk}$ )	Shear ( $V_{Rk}$ )	Tension ( $N_{Rd}$ )	Shear ( $V_{Rd}$ )	Tension ( $N_{Rec}$ )	Shear ( $V_{Rec}$ )	Tension ( $C_{ed,N}$ )	Shear ( $C_{ed,V}$ )	
M8	20.3	10.1	8.1	8.1	5.8	5.8	80	100	100
M10	30.7	15.6	12.6	12.5	9.0	8.9	90	130	130
M12	51.7	23.1	19.7	18.5	14.1	13.2	110	150	150
M16	71.5	41.8	28.9	33.5	20.7	23.9	130	170	170
M20	91.4	66.8	41.1	53.4	29.4	38.2	150	190	210
M24	122.2	95.7	48.9	76.6	34.9	54.7	190	240	240
M30	201.6	123.0	80.6	97.0	57.6	69.3	300	350	350

### 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.

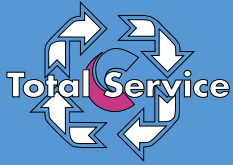
### Edge Distance (Concrete)

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

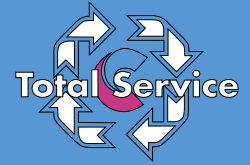
EDGE (mm)	SHEAR EDGE REDUCTION FACTORS						
	M8	M10	M12	M16	M20	M24	M30
60	0.65						
75	0.76	0.70					
90	0.88	0.80	0.69				
100	1.00	0.87	0.75	0.68			
115		0.97	0.83	0.75			
130		1.00	0.91	0.83	0.66		
150			1.00	0.92	0.73	0.63	
170				1.00	0.80	0.69	
190					1.00	0.74	
210						0.80	0.65
240					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



# Epoxy acrylate resin



## Performance Data for Reinforcement Bars

**Concrete Strength Class:**

C20/25 (25N/mm<sup>2</sup> Cylinder; 30N/mm<sup>2</sup> 150mm Cube). Reinforcement Bar: Minimum Yield Strength  $f_{yk}$  460N/mm<sup>2</sup>. Note: Performance based on clean holes; blown and then brushed with a stiff metal brush.

Re-Bar Dia. (mm)	Hole Dia. (mm)	Design Resistance ( $N_{rd}$ ) (kN)																				Embedment Depth to fail Re-bar (mm)	
		8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46		48
8	12	11.4	14.2	17.1	19.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	164
10	14		15.9	19.1	22.3	25.4	28.6	31.8	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	230
12	16			20.9	24.4	27.9	31.3	34.8	38.3	41.8	45.3	48.8	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	49.2	301
14	18				26.3	30.1	33.9	37.6	41.4	45.1	48.9	52.7	56.4	60.2	63.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	379
16	22					32.2	36.2	40.2	44.2	48.3	52.3	56.3	60.3	64.3	68.4	72.4	76.4	80.4	84.4	87.4	87.4	87.4	464
Depth (mm)		80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	500
20	28	45.0	50.6	56.2	61.8	67.4	78.7	89.9	101	112	124	135	137	137	137	137	137	137	137	137	137	137	648
25	32			60.9	67.0	73.0	85.2	97.4	110	122	134	146	170	195	214	214	214	214	214	214	214	214	937
32	40				80.0	93.3	107	120	133	147	160	187	213	240	267	293	320	347	350	350	350	350	1406
40	50						115	130	144	159	173	202	231	259	288	317	346	375	403	461	519	546	2037
Depth (mm)		200	225	250	275	300	350	400	450	500	550	600	700	800	900	1000	1100	1200	1300	1500	1700	1900	2100

Re-Bar Dia. (mm)	Hole Dia. (mm)	Recommended Load ( $F_{rec}$ ) (kN)																				Embedment Depth to fail Re-bar (mm)	
		8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46		48
8	12	7.6	9.5	11.4	13.3	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	164
10	14		10.6	12.7	14.9	16.9	19.1	21.2	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	230
12	16			13.9	16.3	18.6	20.9	23.2	25.5	27.9	30.2	32.5	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	301
14	18				17.5	20.1	22.6	25.1	27.6	30.1	32.6	35.1	37.6	40.1	42.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	379
16	22					21.5	24.1	26.8	29.5	32.2	34.9	37.5	40.2	42.9	45.6	48.3	50.9	53.6	56.3	58.3	58.3	58.3	464
Depth (mm)		80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	500
20	28	30	33.7	37.5	41.2	44.9	52.5	59.9	67.5	74.9	82.4	89.9	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	648
25	32			40.6	44.7	48.7	56.8	64.9	73.1	81.1	89	97	114	130	142	142	142	142	142	142	142	142	937
32	40				53.3	62.2	71.1	80.0	89	98	107	124	142	160	178	195	213	231	233	233	233	233	1406
40	50						76.8	86.4	96	106	115	134	154	173	192	211	230	250	269	307	346	364	2037
Depth (mm)		200	225	250	275	300	350	400	450	500	550	600	700	800	900	1000	1100	1200	1300	1400	1600	1800	2000

**Ultimate physical properties**

- COMPRESSIVE STRENGTH (ASTM 695) - 58,4 N/mm<sup>2</sup>
- TENSILE STRENGTH (ASTM 638) - 14,5 N/mm<sup>2</sup>
- FLEXURAL STRENGTH (ASTM 790) - 26,5 N/mm<sup>2</sup>
- ELASTIC MODULUS - 4941 N/mm<sup>2</sup>
- FLEXURAL MODULUS - 4472 N/mm<sup>2</sup>
- MIXED DENSITY - 1,65 g/cm<sup>3</sup>

**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.