

## High performance epoxy resin anchor

### Product Description

TAL RESILOC EX22 is a pure epoxy resin grout use for general purpose horizontal and vertical anchoring in rock, concrete, brick or solid masonry.

### Advantages

- Meets SCAQMD Rule 1168 & LEED VOC Limits
- High load capacity
- Fixing close to free edge
- Vibration resistant
- Styrene free
- Dimensionally stable
- Easy to use

### Uses

- Starter bars
- Anchor bolts
- Anchor sockets
- Threaded studs

### Laboratory Test Data

Property	Results
7 day compressive yield strength (MPa) (ASTM D695)	65.5
7 day compressive modulus (MPa) (ASTM D695)	1310
7 day tensile strength (MPa) (ASTM D638)	46
7 day elongation % (ASTM D638)	1.9
7 day heat deflection temperature (oC) (ASTM D648)	57
24 hrs water absorption % (ASTM D570)	0.40
Linear coefficient of shrinkage (ASTM D2566)	0.003

### Load Testing

On-site load tests should always be performed to determine the actual performance prior to use, as it is dependent on many variables.

### Gel and Loading Times

Temperature °C	Gel Time (mins)	Loading Time (hours)
5	130	24
20	30	8
30	15	4
40	8	2

### Volatile Organic Content

VOC = <50g/L

### Specification Compliance

SCAQMD Rule 1168  
LEED NC2009 IEQ 4.1  
ASTM C881, Type I, II, IV & V, Grade 3, Class B & C  
Florida DOT Spec 937HV and 937HSHV  
BS 1504 - Part 6

### Packaging

400ml cartridges.

### Shelf Life

18 months when stored at 5°C— 30°C or less in a frost-free, dry and shaded area.

### Installation Guidelines

TAL provides detailed method statements for all its products for use in various applications. These must be referred to prior to starting work. The information below is a summary intended for guidance only


### Hole Preparation


Anchor bolt holes should be drilled using air or rotary percussive drilling equipment. If diamond core or non-percussive drills are used then the sides of the hole must be thoroughly roughened.


### Cleaning the hole

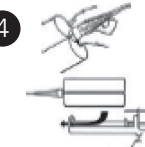
Drilling debris and dust must be thoroughly cleaned from the hole using a stiff nylon bottle brush and clean compressed air and/or clean water. If water is used, the hole may be left damp or even full of water, but the water and the sides of the hole must be clean


### Method of Use


1  Drill the hole to the correct diameter and depth using a rotary percussive machine.


2  Clean the hole using a stiff wire or nylon brush and clean compressed air or blow pump.

3  Once the hole is prepared, remove the screw cap and red plug from the cartridge.

4  Attach mixer nozzle, place in applicator gun and dispense the first part of the cartridge to waste until an even color is achieved.

**5**  Insert the mixer nozzle to the far end of the hole and half fill hole (depending upon application). With-drawing the nozzle as the hole fills. For deep holes, extension tubing can be used.

**6**  Immediately insert the fixing. This should be done slowly with a slight twisting motion. Excess resin should be removed from the mouth of the hole before it sets.

**7**  Leave the fixing undisturbed until loading time has elapsed.

**8**  Attach the fixture and tighten the nut.

### Load Capacity Data

(Please refer to ResiLoc EX22 Design Information Sheet).

### Threaded Rod

This data is applicable to all grades of carbon and stainless steel threaded bar up to 160,000 psi (1040 MPa) ultimate tensile stress. Ensure that threaded bar used can accommodate the loads shown below.

Rod Diameter ins (mm)	Hole Diameter ins (mm)	Hole Depth ins (mm)	Ultimate Loads		Allowable Loads	
			Tension Load lbs (kN)	Shear Load lbs (kN)	Tension Load lbs (kN)	Shear Load lbs (kN)
3/8 (10)	7/16 (11)	3 3/8 (90)	9200 (42)	7100 (31)	2300 (10.5)	1775 (7.7)
1/2 (12)	9/16 (14)	4 1/2 (108)	22300 (100)	12800 (57)	5575 (25)	3200 (14)
5/8 (16)	3/4 (20)	5 3/4 (145)	29900 (134)	22800 (102)	7475 (33)	5700 (25)
3/4 (20)	7/8 (22)	6 3/4 (180)	39200 (175)	32300 (144)	9800 (43)	8075 (36)
7/8 (22)	1 (25)	7 7/8 (200)	53800 (241)	36200 (162)	13450 (60)	9050 (40)
1 (25)	1 1/8 (28)	9 (225)	62600 (280)	52100 (233)	15650 (70)	13025 (53)
1 1/4 (30)	1 3/8 (35)	11 1/4 (270)	88500 (396)	69000 (309)	22125 (99)	17250 (77)

### Rebar (Grade 60 USA)

Bar Size	Minimum Hole Diameter (ins)	Hole Depth (ins)	Ultimate Loads		Allowable Loads	
			Tension Load (lbs)	Shear Load (lbs)	Tension Load (lbs)	Shear Load (lbs)
#4	5/8	4 1/2	23200	11200	5800	2800
#5	3/4	5 5/8	32300	21000	8075	5250
#6	7/8	6 3/4	44400	32200	11100	8050
#7	1	7 7/8	49600	35400	12400	8850
#8	1 1/4	9	54800	38500	13700	9625
#9	1 3/8	10 1/8	59100	41600	14700	10400
#10	1 1/2	11 1/4	62600	44000	15600	11000

### Rebar (Grade 500 Metric)

Bar Size (mm)	Minimum Hole Diameter (mm)	Hole Depth (mm)	Characteristic Loads		Allowable Loads	
			Tension Load (kN)	Shear Load (kN)	Tension Load (kN)	Shear Load (kN)
10	12	90	28.6	21.6	143	14.4
12	16	110	58.0	31.1	29.0	20.7
16	20	145	98.9	55.3	49.4	36.9
20	25	180	134.5	86.4	67.2	57.6
25	32	225	145.7	135.0	72.8	90.0
32	38	290	175.3	221.2	87.6	147.5

### Clean Up

Drilling debris and dust must be thoroughly cleaned from the hole using a stiff nylon bottle brush and clean compressed air or blow pump.