



## Chemical Bolt – Capsule Type Resin

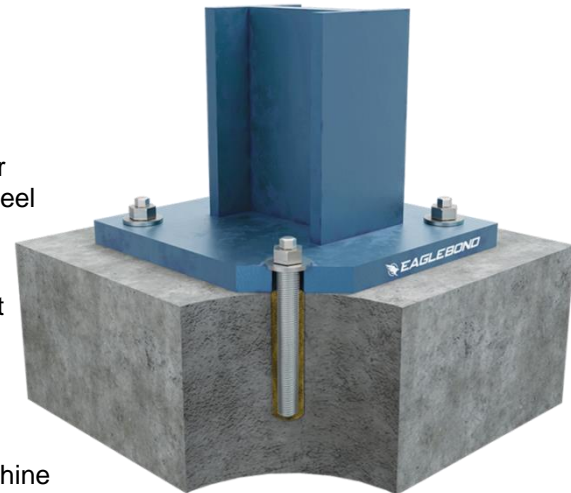
EagleBond chemical adhesive bolt is a type of strong fastening bolt solution used in structural construction especially in fixing loads. It is an effective fastening solution that eliminates the risk of stress in concrete and breaking of concrete that mechanical anchoring bolts produced when fastening

### Advantages and Benefits

- ✓ Performance equivalent to top leading brands for Capsule Resin
- ✓ Fast Curing Time
- ✓ High Strength Load Capacity
- ✓ Simplified - Each fixing requires just one capsule resin, no mixing involved
- ✓ No expansion stresses are generated in the base material
- ✓ Consistent load-carrying capacity
- ✓ Seismic resistance

### Application Range

- ✓ Installation and fixing of bolts in concrete structure
- ✓ Anchoring structural connection for slab, columns, beams, and other steel products
- ✓ Fix load using threaded rod to serve as anchor bolt reinforcement for curtain wall & bracket fixings
- ✓ Building structure reinforcement & framework anchoring
- ✓ Fastening solution for various machine equipments



## Substrate for Anchoring

Approved for use with post-installed anchor rod to cracked and non-cracked concrete with class C20/25 to C50/60



### Chemical Anchor Material

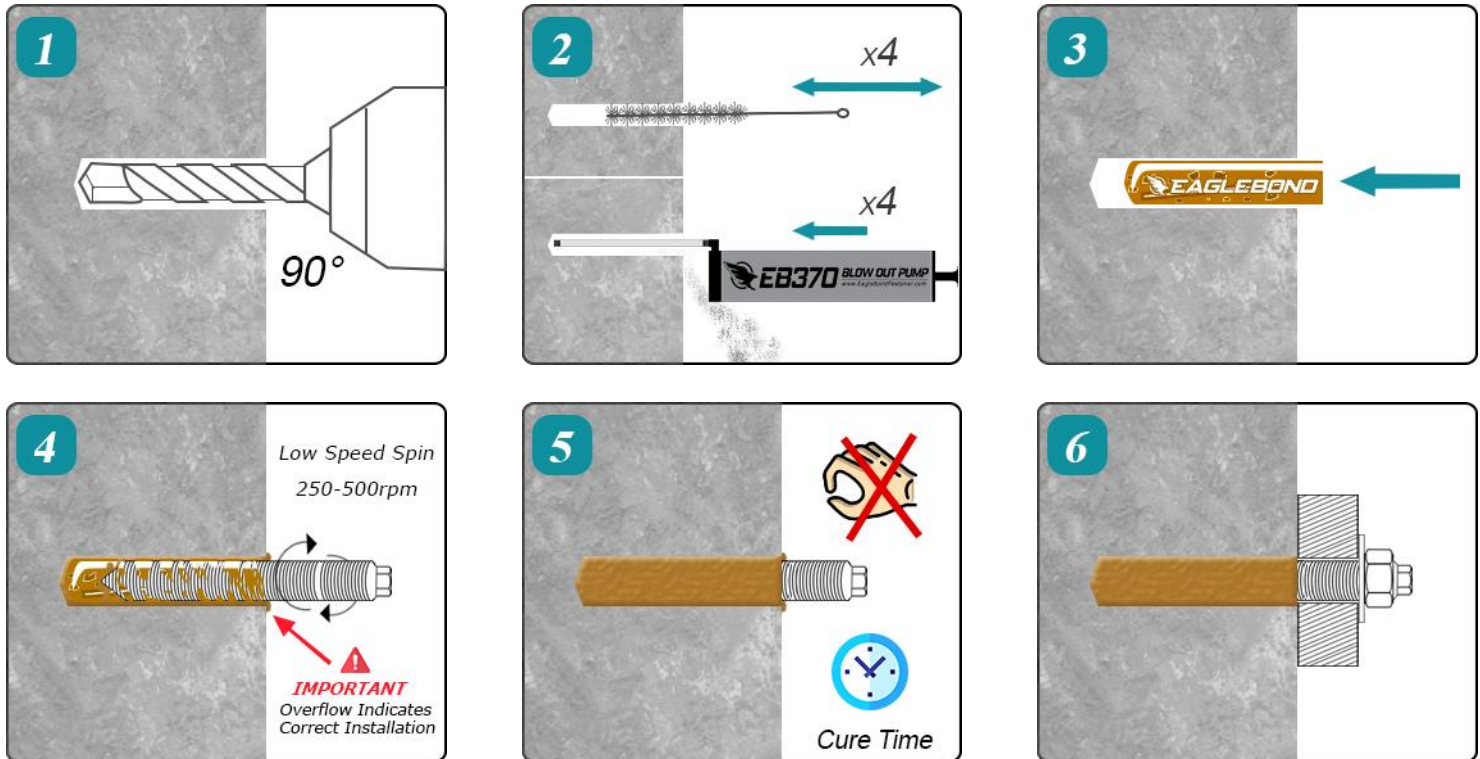
- Anchor Rod Carbon steel grade 4.8 galvanized iron zinc plated (5 µm) / Anchor Rod Stainless Steel 304 / Anchor Rod Carbon steel grade 8.8 hot dip galvanized (45 µm)
- 2 component vinyl ester resin, black silica rock and curing agent in glass capsule



## Operable Time and Curing Time

Temperature (°C)	-5°C	5°C	5 to 10°C	20 to 30°C	≥30°C
Curing Time	6hrs	5hrs	45mins	20mins	10mins

## Installation Guide



**Step 1: Hole Drilling** - Drill the hole according to the specified diameter and anchoring depth provided in the technical data sheet to ensure that the anticipated load strength requirements are met.

**Step 2: Hole Cleaning** - Ensure that the drilled hole is properly cleaned before inserting the capsule resin adhesive to avoid compromising the strength of the bond. Use steel brush and EB370 Industrial Blow Out Pump to clean debris and repeat the cleaning process at least 4 to 5 times.

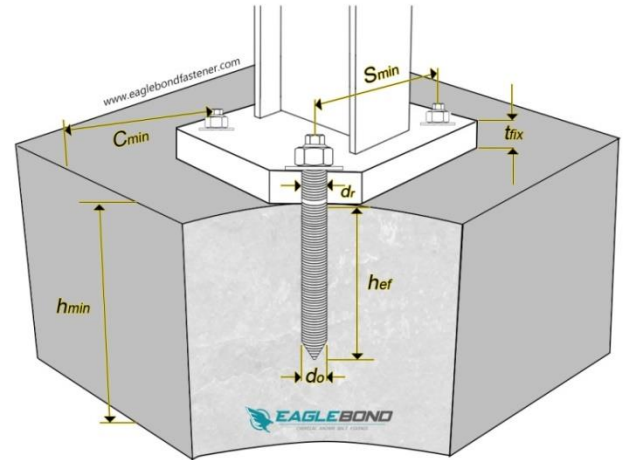
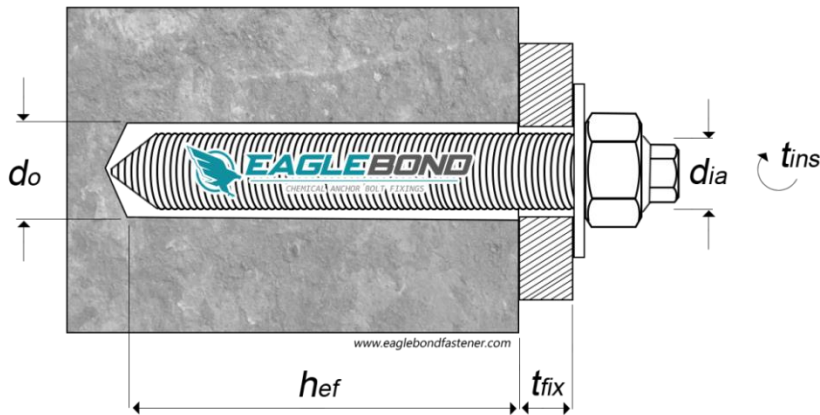
**Step 3: Inserting Capsule Resin** - Insert the capsule into the 90° hole and make sure that it runs smoothly when inserted to prevent breakage.

**Step 4: Installation** - Drill the anchor rod at a low speed settings. Once the stud reaches the bottom of the hole, stop drilling immediately. Further drilling will result spillage of chemical resin contents from the hole.

**IMPORTANT NOTE:** If no chemical resin comes out of the hole, it indicates an incorrect installation. In such cases, remove the rod and start over using another capsule.

**Step 5: Curing Time** - During curing time, Avoid moving the anchor bolt and refrain from applying load.

**Step 6: Load installation** - For recommended safety load, Please check the Anchoring Load Capacity Chart.



## Settings Guide for Anchor Rod

Diameter	dia		M8	M10	M12	M16	M20	M24	M30
Hole Diameter	do	mm	10	12	14	18	24-25	26-28	35
Anchoring Depth	hef	mm	80	90	110	125	170	210	280
Max Torque	Tins	Nm	10	20	40	60	120	150	300
Minimum Thickness of Concrete	hmin	mm	110	120	140	160	220	260	350
Minimum Spacing for Bolt	Smin	mm	40	45	55	65	85	105	140
Minimum Edge Distance	Cmin	mm	40	45	55	65	85	105	140
Fixture Hole Diameter	dr	mm	9	12	14	18	22	26	33
Fixture Max Thickness	tfix	mm	20	25	30	40	55	65	70

## Recommended Safety Load & Permissible Load for C20/25 Concrete Class

Non-Cracked Concrete	Bolt Grade		M8	M10	M12	M16	M20	M24	M30
Tension	G4.8	kN	8.9	12.8	19.4	27.0	40.0	54.0	83.0
Shear	G4.8	kN	5.6	8.9	12.9	24.2	37.6	54.3	74.0
Tension	G8.8	kN	9.2	13.0	20.1	28.5	41.0	55.0	85.0
Shear	G8.8	kN	8.5	13.2	20.7	36.0	55.0	72.5	98.0
Tension	SS304	kN	9.0	13.0	19.8	28.5	40.5	55.0	83.5
Shear	SS304	kN	8.7	9.0	13.0	24.5	38.0	55.0	75.0
Cracked Concrete	Bolt Grade		M8	M10	M12	M16	M20	M24	M30
Tension	G4.8	kN	3.9	4.0	6.0	9.5	16.0	24.0	28.4
Shear	G4.8	kN	4.2	7.5	11.3	18.0	29.0	44.8	64.5
Tension	G8.8	kN	4.1	4.3	6.4	9.8	16.5	24.5	29.0
Shear	G8.8	kN	8.1	12.6	18.4	33.5	43.0	58.0	84.0
Tension	SS304	kN	4.0	4.2	6.3	9.6	16.1	24.3	29.0
Shear	SS304	kN	4.3	7.6	11.5	18.2	30.0	45.0	65.0

Note: The Safety Load Estimation typically represents approximately one-half to one-third of the actual Ultimate Strength



## Technical Specifications

Diameter		M8	M10	M12	M16	M20	M24	M30
EagleBond Capsule (length)	mm	80	90	100	120	165	205	220
EagleBond Capsule (weight)	grams	≥9	≥13	≥21	≥43	≥120	≥130	≥200

G4.8 Galvanized Bolt (length)	mm	110	130	160	190	260	300	390
G8.8 Hot Dipped Galvanized Bolt (length)	mm	110	130	160	190	260	300	390
SS304 Stainless Steel Bolt (length)	mm	110	130	160	190	260	300	390

## Actual Destructive Pull-Out Test Data References for C30 Concrete Class

Non-Cracked Concrete	Bolt Grade		M8	M10	M12	M16	M20	M24	M30
Test Result 1	G8.8	kN	-	45.8	70.1	90.4	167.8	200.4	-
Test Result 2	G8.8	kN	-	42.2	61.2	91.7	160.8	205.1	-
Test Result 3	G8.8	kN	-	47.5	65.8	95.9	165.6	201.6	-

Note: 1 kilonewton (kN) is approximately equal to 101.97 kilograms (kg)

## EagleBond Chemical Bolt Accessories

#1080 Hex Socket Adaptor Set 5mm to 13mm	#298 EB370 Industrial Blow Out Pump / Air Pump / 370mm	Eagle Bond SDS PLUS and SDS Max - Masonry Drill Bit Carbide 4 Tip Ø6mm to Ø40mm	#281 & #299 Nylon Steel Brush
			
Used in Standard Drill Chuck  6mm Socket for 8mm Chembolt 6mm Socket for 10mm Chembolt 8mm Socket for 12mm Chembolt 10mm Socket for 16mm Chembolt 12mm Socket for 20mm Chembolt 12mm Socket for 24mm Chembolt	Used for blowing out dust and debris from drilled holes  Effective Cleaning Anchoring Depth Up to 370mm	Chembolt Drill Bit Sizes  Ø10mm Drill Bit for 8mm Chembolt Ø12mm Drill Bit for 10mm Chembolt Ø14mm Drill Bit for 12mm Chembolt Ø18mm Drill Bit for 16mm Chembolt Ø24/26mm Drill Bit for 20mm Chembolt Ø26/28mm Drill Bit for 24mm Chembolt	Used for brushing out dust and debris from drilled holes