22 CHEMCAP CHEMICAL ANCHOR

22.11 PRODUCT DATA

Stud Bolt Head Type:

- Hex

Material Coating:

- Yellow Zinc Plated (Pictured)
- Galvanised
- 316 Stainless Steel

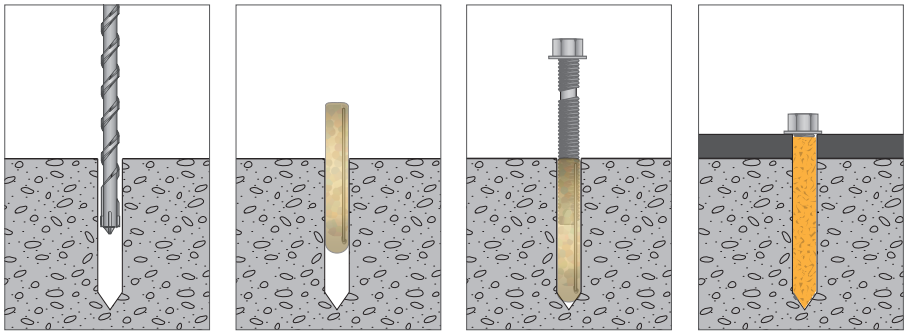
22.12 PRODUCT DESCRIPTION

The Macsim Chemical Capsule Anchor System combines a glass encapsulated epoxy acrylate resin and a high quality threaded stud specifically designed to suit the anchor dimensions.

The system applies no stress to the base material and actually enhances material strength. High loadings can be achieved by increasing depth and using multiple capsules combined with high strength studs.

22.13 INSTALLATION METHOD

1. Drill Correct Diameter and depth of hole in Concrete Substrate as specified.
2. Clean hole by brushing and blowing out dust carefully.
3. Place the Macsim Chemcap Capsule in the hole and attach the supplied hexagonal key (male or female) and insert into the top of the stud.
4. Using a Rotary Hammer drilling machine, attach the hex key and drive the stud on hammer action into the capsule until the bottom of the hole is reached. There is a clear mark on the stud which should meet the concrete surface. Do not over drive as this will simply draw out the resin. Leave the anchor to cure according to the time-temperature table, before applying fixture and tightening nuts to torque setting.



22.14 APPLICATIONS

- Concrete
- Stone
- Solid Brick & Block
- Aerated Concrete
- Grout Filled Concrete

22.15 ADVANTAGES

- High Load Capacity
- Enhanced Material Strength

CODE	Stud Diameter	Drill Diameter (mm)	Embed. Hole Depth (mm)	Fixture Clear Hole (mm)	Std. Stud Length (mm)	Max Std. Thickness Fastened (mm)	Minimum Structural Thickness (mm)	Min. Spacing Full Load (mm)	Min. Edge Distance Full Load (mm)
37C08	M8	10	80	9	110	16	100	160	80
37C10	M10	12	90	11	130	22	110	180	90
37C12	M12	14	110	13	160	30	130	220	110
37C16	M16	20	125	17	190	40	145	250	125
37C20	M20	25	180	22	260	70	190	340	170
37C24	M24	28	220	26	300	65	230	420	210

CHEMCAP CHEMICAL ANCHOR

22.16 MATERIAL SPECIFICATIONS

5.8 Spec Stud Dia.	Max. Tightening Torque (Nm)	Nominal Tensile Strength 5.8 ZP Stud (N/mm^2)	Nominal Tensile Strength 5.8 Gal Stud (N/mm^2)	Nominal Tensile Strength A4/70 SS Stud (N/mm^2)	Effective Cross Section (mm^2)	Nut Width Across Flats (mm)	Washer Dia. (mm)
M8	15	580	580	700	32	13	16
M10	25	580	580	700	52	17	20
M12	40	580	580	700	76	19	24
M16	80	520	520	700	144	24	30
M20	160	520	520	700	225	30	37
M24	300	520	520	700	324	36	44

22.17 CURING SPECIFICATION

Base Material Temperature (°C)	Hardening Time (Minutes)	Full Load Curing Time (Minutes)
> + 20	10	20
+10 to +20	15	30
0 to +10	40	60
-5 to 0	200	300

NOTE: Anchor Curing depends on the temperature of the base material at the time of application. Care must be taken not to apply loading, including setting torque to the anchor until the hardening time has expired. The anchor will not accept full load capability until the cure time is exceeded and will be permanently damaged by premature loading.

22.18 SIMPLE LOAD CHARACTERISTICS

Anchor Size (mm)	Hole Diameter (mm)	Min. Embed. Depth (mm)	Ultimate Tensile Strength (kN)	Ultimate Shear Strength (mm)	Working Load		Rec.** Anchor Spacing (mm)	Rec.** Edge Distance (mm)
					Tensile (kN)	Shear (kN)		
M8	10	80	18.00*	14.50	5.00	3.40	160	80
M10	12	90	28.00*	22.00	7.30	4.60	180	90
M12	14	110	42.00*	30.90	10.70	6.60	220	110
M16	20	125	74.30	57.50	16.70	11.90	250	125
M20	25	180	110.00	87.20	30.10	18.40	340	170
M24	28	220	160.90	129.10	43.10	35.10	420	210

Concrete Strength 25MPa
* Load Limited by 5.8 grade stud capacity
** Reduction Factors apply for distances less than these.