

CICO RESIFIX-G

Polyester Resin Anchoring Grout

A Polyester Resin based anchoring grout, with pseudo-plastic property. It is a two pack system consists of 1) a resin part and 2) a hardener part. It is easy to pour and attains high early strength.

USES

CICO RESIFIX-G is used for anchoring bolts into rock, concrete, masonry or brickwork where high corrosion resistance and high compressive strength are required. It is also used for the permanent installation of reinforcement starter bars, foundation bolts, base plates, railway tracks etc. CICO RESIFIX-G is specially used in those place where high speed of installation is required and also with its uses early application of load become possible.

ADVANTAGES

- Controlled setting time.
- Rapid high strength development.
- Pseudo plastic nature makes its casting possible on the vertical surfaces also.
- Easy to pour at the anchoring sites.
- At temperature range 5 - 40°C it is workable.

The gel time of resin is the time required to change the viscous resin to gel. The setting time is the time from gel to hard mass. Care must be taken during installation of **CICO RESIFIX-G** because all resin based grouts are temperature sensitive.

METHOD OF APPLICATION

Surface Preparation

Surface should be clean, sound and free from oil grease, dust & other contamination.

Mixing

Mix the resin pack with hardener (powder) pack for 2 to 3 minutes either manually or by using drill or powder mixture before its application and then only apply it to the appropriate place by pouring / pumping.

Application

Only Material necessary for immediate use should be mixed. The Mixed resin should stand for 1 to 2 minutes to let the entrapped air escape.

DESIGN CRITERIA

The version of **CICO RESIFIX-G** to be used will depend upon ambient temperature and anchor conditions.

The high strength of the cured resin permits strong anchors to be created. The ultimate bond strength developed depends upon:

- Strength of host material
- Length of resin bond to bar
- Hole preparation and formation
- Type and dimension of bar

The following formula may be used to determine the minimum depth of installation

for Type 1 rebar bolts, to ensure the shear stress within the concrete is kept within the limits set out in BS 8110.

Minimum hole depth (mm) = $0.6Y / SPd_2$.

$Pd_2/4 = 0.15Yd_2 / Sd_2$

where Y is characteristic yield strength of steel (460 N/mm²)
S is permitted shear stress in concrete (N/mm²)
d₁ is bar diameter (mm)
d₂ is hole diameter (mm)

PROPERTIES

Gel Time (Minutes) @ 30°C	5 ± 2
Compressive strength, (Mpa) After 2 hrs @ 30°C	≥ 40
After 7 Days (Mpa) @ 30°C	≥ 60
Mix Density (Kg/m ³)	2000 ± 200
Shelf life	3 Months

Minimum hole depth						
Characteristic concrete strength (N/mm ²):						
			20	25	30	> 40
Permitted concrete shear stress using Type One Bar (N/mm ²):						
			1.8	2	2.2	2.5
Bar diameter (mm)	Yield (tonnes)	Hole diameter	Minimum hole depth (mm)			
12	5.2	20	280	250	225	200
16	9.3	20	490	445	400	355
20	14.5	25	615	555	500	440
25	22.6	32	750	675	615	540
32	37	38	1035	930	845	745
40	57.8	45	1365	1225	1115	980

Note : 1. Pot Life and C. Strength may vary with different Temp.

2. The above test results are based upon our lab experiments.

Important Note:

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