

**Description**

Our Grouting treatment is specially formulated for grouting in structural cracks and honeycomb concrete. It uses cement based compound supplied in powder form and formulated form Portland cement, fine quartz sand, active chemicals and retarding agent which will not saponify under wet and alkaline conditions.

The chemicals in our material is capable of exchanging atom group with the nearby molecules in a similar way to ion exchange used in water softener and can in this way penetrate through the capillaries deep into the substrate and here they react as described above with the calcium oxides and hydroxides also popularly called 'Free Lime'

This is especially good for bonding physically and chemically in the capillaries of this cracks and honeycombs in the concrete where **it also expands** and seals the cracks and honeycombs. It is a high strength grout specially formulated for grouting purposes. Due to its **non-shrink** properties it will not shrink when grouted into the pores and capillaries of concrete. When the pressures is achieved the water have evaporated the grout will remain in these pores and actually filled up the pores due to its expansion properties.

Further to this, there are chemical in the grout that will actually crystallize inside these pores and capillaries, thus making this area waterproofed. This has good flow and will flow into the crevices wherever it has been grouted. This will ensure that all crevices and fine cracks are all sealed and water proofed.

Tests have shown that a honey comb area of concrete grouted with our material when cored out and tested has a higher strength than the original concrete. It is specially used to form water tight angle fillet at corner/edge of vertical and horizontal surfaces.

**PHYSICAL PROPERTIES**

Mix Designs	Flowable Water
<b>Test (at temperatures)</b>	30° C
<b>Flow</b> BS cone (mm)	310
J Cone (seconds)	13
<b>Initial Setting Time</b> (h r: min)	3.00
<b>Bleeding at 24 hrs (%)</b>	0
<b>Expansion at 24 hrs (%)</b>	0.60
<b>Compressive Strength</b> 1 day	40
3 days	55
7 days	66
28 days	54.8
<b>Flexural Strength</b> (N/mm2)	
7 days	6.5
28 days	8.0

This material is especially good for structural cracks and column as shown in the diagram below:

**GS 107 Procedure**

