

## SIRI GROUT 702

### Free Flow, Non Shrink Cementitious High Strength Grout

SIRI GROUT 702 is a special formulated cementitious grout which has excellent shrink resistance and free flow properties. The very high initial and ultimate strengths make it suitable for applications below load bearing areas where high static and dynamic loads occur. The high strength cementitious grout has unique formulation which doesn't cause corrosion of machine parts, bolts etc. in contact with.

#### Advantages :

- ❖ SIRI GROUT 702 has good pourability and flowability. The free flow nature guarantees highest contact areas with the machine base plate and other load bearing areas. Sirigrout 702 has excellent non shrink property. This volume stability ensures permanent contact with the bearing area.
- ❖ Rapid development of very high initial and final strengths make Aqua Grout 402 the right system to support equipment that transfers very high static and dynamic loads.
- ❖ SIRI GROUT 702 is free from harmful chlorides and other aggressive chemicals which attack steel and hence ensure non corrosive supporting system.
- ❖ SIRI GROUT 702 is easy to mix and apply as only water of a definite quantity has to be added at site to the ready made grout.
- ❖ SIRI GROUT 702 has special additives and graded aggregates which are compatible with concrete substrates.

#### Areas of Application :

- Heavy duty machine foundations
- Base plates and bolt pockets of turbo generators
- Columns in pre cast construction
- Diesel generator sets
- Cement, textile and paper mill machinery
- Steel rolling mill beds
- Crane and transporter rails
- Concrete anchors
- Cavities, gaps and recesses

#### Properties :

Size of cubes = 70.6 mm x 70.6mm x70.6mm IS standard cubes

Temperature = 30<sup>0</sup>C

Cubes were kept under restraint before testing

S.No	Description	Medium consistency @ W/p ratio of 0.165		Maximum consistency W/p ratio of 0.17
1.	Compression strength Kg/cm <sup>2</sup>	1 day	280	250
		3 day	550	470
		7 day	680	570
		28 day	820	700
2.	Tensile Strength	28 day	38 kg/cm <sup>2</sup>	35.3 kg/cm <sup>2</sup>
3	Young's Modulus	28.1 KN/mm <sup>2</sup>		
4.	Un restrained expansion	1% to 4%		
5.	Resistance to dynamic loads	Siri grout 702 withstood the alternate loading of 250 kg/cm <sup>2</sup> and 50 kg/cm <sup>2</sup> at the rate of 500 cycles per minute for two million cycles.		
6.	Expansion time (after mixing)	Stops after approximately 160 minutes @ 30 <sup>0</sup>		
7.	Density	2210 kg/m <sup>3</sup>		
8.	Flow ability at maximum consistency under 240mm Head	Gap width 20mm Gap width 40mm		1600mm 3000 mm

#### **Method of Usage :**

- ❖ Before grouting clean all surface coming into contact with all kinds of contaminations such as fat, oil dust and cement slurry must be removed.
- ❖ The concrete substrate should be thoroughly wetted and saturated with water.
- ❖ Ensure leak proof shuttering. Mix 4.125 litres of water (w/p ratio = 0.165) or 4.25 litre pre bag (w/p ratio = 0.17) of grout depending upon the flow required.
- ❖ W/p ratio of 0.17 gives maximum flow and a 28 day compressive strength of 700 kg/cm<sup>2</sup>
- ❖ Measure water required precisely
- ❖ Mix water required precisely
- ❖ Mix mechanically and ensure homogeneous mix.
- ❖ When grouting thickness is over 100mm (i.e, for bigger gaps over 100 mm (below base plate) mix 12mm 5mm coarse aggregate (Aggregate content = 50% to 100% by weight of siri grout 702

- ❖ Expose surface of siri grout 702 should cure like concrete in order to avoid premature evaporation of the water. Start curing as soon as the grout reaches its touch hard state. Curing up to a minimum of 7 days in a must.
- ❖ While grouting with siri Grout 702 and up to approximately 3 hours later strong vibration of any kind should be avoided.
- ❖ While grouting, ensure that there are no air voids to get maximum contact area.
- ❖ siri grout 702 should be poured from one side only. Never add any other ingredient like cement, sand fibre admixture etc. to aqua grout 402 pre packed system. Do not use vibrators as siri Grout 402 a free flowing grout which does not need any compaction.
- ❖ Never use siri grout 702 after 30 minutes of mixing. Under any circumstance do not use water more than specified (normal w/p ratio for maximum flow is 0.17) check the date of manufacturing of siri Grout 402 before use do not use damaged bags siri grout 702
- ❖ Contact siri grout 702 local representative to Technical service Department for all clarifications before grouting operation.

#### **Estimation :**

The required number of 25 kg. siri grout 702 bag can be calculated by considering the yield per bags = 13.3 litres

#### **Precautions :**

Siri grout 702 is non toxic non flammable. Use gloves while mixing and pouring siri grout 702 Splashes on the eyes should be washed with plenty of water and medical advice has to be taken.

#### **Technical Support :**

Technical Support regarding range of Epoxy and water Proofing coating, range of Admixture and other range of epoxy flooring can be obtained from Technical cell of Siri Build care system.