



## **ADDAGE GROUT 22**

### ***Description of Addage Grout 22:-***

Grout 22 is supplied as a ready to use dry powder. The addition of a controlled amount of clean water produces a free flowing, non-shrink grout. Grout 22 is a blend of Portland cement, graded fillers and chemical additives which impart controlled expansion in the plastic state whilst minimizing water demand. The low water demand ensures high early strength. The graded fillers are designed to assist uniform mixing and produce a consistent grout.

### ***Uses:***

Grout 22 is used for precision grouting where it is essential to withstand static and dynamic loads. Typical applications would be the grouting of base plates of turbines, compressors, boiler feedpumps etc., It can also be used for anchoring a wide range of fixings. These include masts, anchorbolts and fence posts.

### ***Properties:***

#### ***Compressive strength:- (BS1881part 116, 1983)***

| Age<br>(Days) | Compressive Strength (N/mm <sup>2</sup> )<br>Consistency (W/P- 0.16)<br>Flowable | Compressive Strength (N/mm <sup>2</sup> )<br>Consistency (W/P- 0.14)<br>Pourable |
|---------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 1             | - 24                                                                             | - 27                                                                             |
| 3             | - 35                                                                             | - 45                                                                             |
| 7             | - 45                                                                             | - 55                                                                             |
| 28            | - 55                                                                             | - 60                                                                             |

|                       |                                                                             |
|-----------------------|-----------------------------------------------------------------------------|
| Tensile Strength      | :- 3.5 N/mm <sup>2</sup> @ 28 days (W/P- 0.16)                              |
| Pullout bond Strength | :- 17 N/mm <sup>2</sup> @ 7 days (W/P- 0.16) , 20N/mm <sup>2</sup> @ 28days |
| Time for Expansion    | :- Start 20 minutes (After Mixing) Finish 120 minutes                       |
| Fresh wet density     | :- Approximately 2220 kg /m depending on actual consistency used.           |

***Coefficient of thermal expansion:-*** - 11 x 10 /-6 degree C

***Unrestrained expansion:-*** - 2 - 4 % in the plastic state enables to overcome shrinkage. Pressure to restrain: 0.004 N/mm square approx. plastic expansion.

***Flow characteristics:-*** - The maximum distance of flow is governed by the gap width and the head of the grout. Typical data for flow design assuming grout is poured immediately after mixing is given in the table below:



## Sakshi Chem Sciences Pvt. Ltd.



2<sup>nd</sup> Floor, Vishal Furniture, Opp Police Station Sitabuldi, Nagpur – 440012., Ph. : 0712- 6617716, (M) 9422146423  
Email – [enquiry@sakshichemsciences.com](mailto:enquiry@sakshichemsciences.com), Website : . [www.sakshichemsciences.com](http://www.sakshichemsciences.com)

---

### ***Application instructions***

#### ***Preparation Foundation surface***

The substrate surface must be free from oil, grease or any loosely adherent material. If the concrete surface is defective or has laitance, it must be cut back to a sound base. Bolt holes and fixing pockets must be blown clean of any dirt or debris.

#### ***Pre-soaking***

Several hours prior to placing, the concrete substrates should be saturated with fresh water. Immediately before grouting takes place any free water should be removed with particular care being taken to blow out all bolt holes and pockets.

#### ***Base plate***

It is essential that this is clean and free from oil, grease or scale. Air pressure relief holes should be provided to allow venting of any isolated high spots.

#### ***Leveling shims***

If these are to be removed after the grout has hardened, they should be treated with a thin layer of grease.

#### ***Formwork***

The formwork should be constructed to be leak proof. This can be achieved by using foam rubber strip or mastic sealant beneath the constructed formwork and between joints. In some cases it is practical to use a sacrificial semi-dry sand and cement formwork. The formwork should include outlets for pre-soaking.

#### ***Unrestrained surface area***

This must be kept to a minimum. Generally the gap width between the perimeter formwork and the plate edge should not exceed 150mm on the pouring side and 50mm on the opposite side. It is advisable, where practical, to have no gap at the flank sides.

### ***Mixing and placing***

#### ***Mixing***

For best results a mechanically powered grout mixer should be used. When quantities up to 50kg are used, a heavy duty slow speed drill (400-500 rpm) fitted with a paddle is suitable.. Larger quantities will require a heavy duty mixer. To enable the grouting operation to be carried out continuously, it is



## Sakshi Chem Sciences Pvt. Ltd.



2<sup>nd</sup> Floor, Vishal Furniture, Opp Police Station Sitabuldi, Nagpur – 440012., Ph. : 0712- 6617716, (M) 9422146423  
Email – [enquiry@sakshichemsciences.com](mailto:enquiry@sakshichemsciences.com), Website : . [www.sakshichemsciences.com](http://www.sakshichemsciences.com)

---

essential that sufficient mixing capacity and labour are available. The use of a grout holding tank with provision to gently agitate the grout may be required.

### *Consistency of grout mix:-*

The quantity of clean water required to be added to a 25kg bag to achieve the desired consistency is given below:

Pourable:- 3.5 liters, Flow able : 4.000 liters .

The selected water content should be accurately measured into the mixer. The total content of the **Addage grout 22** bag should be slowly added and continuous mixing should take place for 5 minutes. This will ensure that the grout has a smooth even consistency. Placing At 30 degree C place the grout within 20 minutes of mixing to gain full benefit of the expansion process. **Addage grout 22** can be placed in thicknesses up to 100mm in a single pour when used as an underplate grout. For thicker sections it is necessary to fill out **Addage grout 22** with well graded silt free aggregate to minimize heat buildup. Typically a 10mm aggregate is suitable. 50 - 100% aggregate weight of **Addage grout 22** can be added. Any bolt pockets must be grouted prior to grouting between the substrate and the base plate. Continuous grout flow is essential. Sufficient grout must be prepared before starting. The time taken to pour a batch must be regulated to the time to prepare the next one.

### *Standards Compliance:-*

Addage Grout 22 Complies with Engineers spec CRD-C-621-83 & ASTM-C-1107.

### *Typical hopper system*

**Removable hopper:-** For large pours the grout may be hand placed or pumped into a removable hopper (trough). Pouring should be from one side of the void to eliminate any air or presoaked water becoming trapped under the base plate. It is advisable to pour the grout across the shortest distance of travel. The grout head must be maintained at all times so that a continuous grout front is achieved. Where large volumes have to be placed Addage Grout 22 may be pumped. A heavy duty diaphragm pump is recommended for this purpose. Screw feed and piston pumps may also be suitable.

### *Curing*

On completion of the grouting operation, exposed areas should be thoroughly cured. This should be done by the use of Concure WB curing membrane, continuous application of water and/or wet hessian.

### *Estimating & Packaging*

Addage Grout 22 is supplied in 25 kg moisture resistant bags.



**Sakshi Chem  
Sciences Pvt. Ltd.**



2<sup>nd</sup> Floor, Vishal Furniture, Opp Police Station Sitabuldi, Nagpur – 440012., Ph. : 0712- 6617716, (M) 9422146423  
Email – [enquiry@sakshichemsciences.com](mailto:enquiry@sakshichemsciences.com), Website : . [www.sakshichemsciences.com](http://www.sakshichemsciences.com)

---

### ***Yield***

Allowance should be made for wastage when estimating quantities required. The approximate yield per 25 kg bag for different consistency is :

Consistency..... Pourable..... Flowable Yield (litres) .....12.5 .....13.3

### ***Storage & Shelf life***

Addage Grout 22 has a shelf life of 6 months if kept in a dry store in sealed bags. If stored in high temperature and high humidity locations, the shelf life may be reduced.