

JS 621 GROUT

Non-Metallic, Non-Shrink Grout

PRODUCT DESCRIPTION

JS 621 Construction Grout is non-metallic, non-shrink, grouting material, suitable for all grouting requirements. It is non-corrosive and non-staining. The precise blending of proprietary ingredients in JS 621 Construction Grout produces a controlled, positive expansion from time of placement.

GENERAL USES

JS 621 Construction Grout is excellent for grouting precast or pre-stressed concrete; interior or exterior equipment; and machinery subject to moisture, high humidity and chemical spillage

- Power plants
- Petrochemical plants
- Transmission towers
- Paper mills
- General purpose grouting: heavy equipment and Base plates, structural column
- Pump and equipment bases

FEATURES

JS 621 Construction Grout contains specialty graded, fine, select silica aggregates; cement; shrinkage compensating ingredients; and plasticizing and water-reducing agents. Strength, dimensional stability, flowability, workability and setting characteristics are assured by careful blending in Jobsite's own plants under rigid quality control standards:

- High early strength
- Non-shrink
- Non-rusting
- Excellent freeze-thaw resistance
- Interior/exterior applications

STANDARDS

JS 621 Construction Grout conforms to requirements of Corps of Engineers CRD C621 and ASTM C1107

INSTRUCTION FOR USE

Surface Preparation

Surfaces must be free from oil, grease or any loose materials. If the concrete surface is defective or has laitance, it must be cut back to a sound base.

Base plate preparation

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

Leveling Shims

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

Pre-soaking

Several hours prior to grouting, the clean area should be flooded with fresh water. Immediately prior to grouting any free-standing water should be removed with air to blow out bolt holes and pockets.

Approximate Yield: 0.43 cu. ft. /50 lb bag.

Mixing

The amount of water added to obtain the desirable consistency must be precise, and an accurate measuring method must be employed. Consistencies described conform to CRD C621-83. According to the desired grout consistency, the amount of water required for each 50 lb bag of JS 621 Construction Grout is:

<u>Plastic</u>	<u>Flowable</u>	<u>Fluid</u>
5- 7 pints water	7-8 pints water	8-9 pints water
5.2-7.3lb	7.3-8.3 lb	8.3-9.4 lb
2.4-3.3 liters	3.3-3.8 liters	3.8-4.3 liters

In cold conditions warm water (95-110 ° F) may be used to accelerate the strength development.

Application

For best results, a mechanically powered grout mixer should be used. For small quantities of 1-2 bags, a slow speed electric drill with a suitable paddle is recommended. It is essential that machine mixing capacity and labor availability is adequate to enable the grouting operation to be carried out continuously. This may require the use of holding tank with provision for gentle agitation to maintain fluidity. The selected water content should first be accurately measured into the mixer. Slowly add the total contents of JS 621 Construction Grout bag. Mix continuously for 5 minutes, making sure that a smooth, even consistency is obtained. Place the grout within 5 minutes of mixing to gain the full benefit of the expansion process. Where large volumes have to be placed JS 621 Construction Grout may be pumped. A heavy-duty diaphragm pump is recommended for this purpose.

For deep application (over 2''), clean 3/8'' (25 mm) pea gravel should be added to the grout:

2'' to 5'' application	25% by weight
over 5'' application	50% by weight

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Covering and Placing

When placing JS 621 Construction Grout or any other grout, a continuous grout flow is essential. Sufficient grout must be available prior to starting project and the time taken to pour a batch must be regulated to the time taken to prepare the next. Pouring and placing grout should be from one side only to eliminate voids in the cured grout by entrapment of air or surplus presoaking water. A grout head must be maintained at all the times so that a continuous grout front is achieved.

Curing

Upon completion of the grouting operation, exposed areas, which are not to be cut back, should be thoroughly cured using normal concrete curing methods and practice. Jobsite Supply Chemical Division manufactured a variety of chemical curing compounds, which may be used with JS 621 Construction Grout. Please contact your Jobsite representative for additional information.

Shelf life: One year. Store in a cool and dry location

Technical Data

Set time (approximate) – ASTM C266

	<u>Plastic</u>	<u>Flowable</u>	<u>Fluid</u>
Initial	3.5 hrs.	4.0 hrs.	3.6 hrs.
Final	4.75 hrs.	4.8 hrs.	4.75 hrs.

Compressive Strength – ASTM C109

Plastic

1 day	3500 psi (23 MPa)
3 day	5500 psi (38 MPa)
7 day	7000 psi (48 MPa)
28 day	10600 psi (73 MPa)

Flowable

1 day	3000 psi (21 MPa)
3 day	4800 psi (33 MPa)
7 day	6500 psi (45 MPa)
28 day	8700 psi (60 MPa)

Fluid

1 day	1500 psi (11 MPa)
3 day	3200 psi (22 MPa)
7 day	4500 psi (31 MPa)
28 day	7300 psi (50 MPa)

Flexural Strength – ASTM C348

1 day	720 psi (4.96 MPa)
28 day	1130 psi (7.79 MPa)

Splitting Tensile Strength – ASTM D-496

7 day	580 psi (4.00 MPa)
28 day	650 psi (4.48 MPa)

Coefficient of Thermal Exp. – ASTM C531

4.76 X 10⁻⁶ in/in ° F

Strength of Anchors - ASTM E-488

1-1/4" dia. bolt in a 2-1/2" dia. hole with 9" embedment

<u>Tensile Strength</u>	<u>Shear Strength</u>
52,700 lb.	23,800 lb.

1/2 "dia. bolt in a 1- 1/8" dia. Hole with 4" embedment

<u>Tensile Strength</u>	<u>Shear Strength</u>
6,900 lb.	1,890 lb.

PACKAGING

- 50 Lb (22.7 Kg) bags; 3000 lb. (1361 Kg) bulk bag

LIMITATION/WARNING

- Refer to Material and Safety Data Sheet prior to use.
- Do not re-temper.
- Do not vibrate.
- Do not use any additives including accelerators, water reducers, or air entraining agents.
- Avoid direct contact with skin and eyes.

TECHNICAL SERVICES

Jobsite Supply Technical Service Department provides complete product and technical support.