

## 844 - SLURRY GROUT

### SECTION 844

### SLURRY GROUT

#### 844.1 DESCRIPTION

Fill cavities of existing structures, mines or voids under pavements and slabs on grade with a slurry grout as shown in the Contract Documents.

**BID ITEM**

Slurry Grout (\*)

\* Low Strength , High Strength or Underseal

**UNITS**

Cubic Yard

#### 844.2 MATERIALS

**a. Materials.** Provide materials that comply with the applicable requirements.

Fine Aggregate .....	<b>DIVISION 1100</b>
Cement and Fly Ash (approved for stabilization & cold recycle) .....	<b>DIVISION 2000</b>
Water .....	<b>DIVISION 2400</b>

The Engineer will approve the use of admixtures to achieve flowability and acceptable set time, based on performance. Provide foaming agents approved by the Engineer.

**b. Approval of Mix Design.** Design a slurry grout that complies with **TABLE 844-1**.

<b>TABLE 844-1: REQUIREMENTS FOR SLURRY GROUT MIXTURE</b>			
	LOW-STRENGTH MIXTURE	HIGH-STRENGTH MIXTURE	UNDERSEALING MIXTURE
3 Day Compressive Strength (minimum)	20 psi	-	100 psi
7 Day Compressive Strength (minimum)	-	125 psi	600 psi
28 Day Compressive Strength	100 psi (max.)	200 psi (min.)	
Unit Weight (minimum)		92 lbs/cu. ft.	
Flow, seconds (ASTM C939)			10 - 16

Submit the slurry grout mix design and results of the required compressive strength testing (conducted by a testing laboratory) to the DME for approval. The DME will approve or reject the mix design within 2 weeks of the submittal.

**c. KDOT Assurance and Acceptance.** The Engineer will make a set of test cylinders for each 100 cubic yards of slurry grout placed on the project, and when the mix design or source of fly ash is changed. The Engineer will make and test the cylinders according to **DIVISION 2500**. The Engineer will make a set of 3 cylinders for each 100 cubic yards produced.

- For underseal mixture, test the 1<sup>st</sup> cylinder on the 3<sup>rd</sup> day
- For low strength, test the 1<sup>st</sup> cylinder on the 3<sup>rd</sup> day
- For high-strength mixture, test the 1<sup>st</sup> cylinder on the 7<sup>th</sup> day
- The Engineer will laboratory cure the remaining 2 cylinders.
- For underseal mixture, test the 2<sup>nd</sup> cylinder on the 7<sup>th</sup> day
- For low and high strength mixture, test the 2<sup>nd</sup> cylinder on the 28<sup>th</sup> day
- The Engineer will hold the 3<sup>rd</sup> cylinder in reserve to verify any questionable cylinder breaks.

The Engineer will test the unit weight a minimum of every 50 cubic yards of slurry grout placed on the project.

The Engineer will test the flow of the underseal slurry grout 2 times per day. The ratio of the water to cementitious material will be adjusted to comply with the requirements.

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The Engineer will accept the slurry grout based on the results of the compressive strength, unit weight tests, and visual inspection of the mixture placed on the project.

### **844.3 CONSTRUCTION REQUIREMENTS**

Pump the slurry grout into the structures to fill all the voids.

Bulkhead each end of the structure to be filled. Provide a minimum of 2 vent pipes to monitor the pumping. If necessary to fill the structure, pump additional grout through the vent pipes.

If filling voids under pavements and slabs on grade, place the slurry grout as shown on the Contract Documents.

Observe the weather limitations specified in **DIVISION 400** when placing the slurry grout.

### **844.4 MEASUREMENT AND PAYMENT**

The Engineer will measure slurry grout by the cubic yard.

Payment for "Slurry Grout" at the contract unit price is full compensation for the specified work.