

Item No. 41 :- Providing and laying foundation cement concrete 1:3:6 (1 cement :3 coarse sand : 6 aggregate 20mm nominal size) graded concrete and curing complete.

1.0. Materials

- 1.1.** Water shall conform to M-1. Cement shall conform to M-3. Sand shall conform to M-6. Crushed stone aggregate 40 mm. nominal size shall conform to M-12.

2.0. Workmanship

2.1. General

- 2.1.1.** Before stating concrete the bed of foundation trenches shall be cleared of all loose materials, leveled, watered and rammed as directed

2.2. Proportion of Mix:

- 2.2.1.** The proportion of cement, sand and stone aggregate shall be one part of cement, 3 parts of coarse sand and 6 parts of crushed stone aggregates and shall be measured by volume.

2.3. Mixing:

- 2.3.1.** The concrete shall be mixed in a mechanical mixer at the site of work. Hand mixing may however be allowed for smaller quantity of work if approved by the Engineer-in-charge. When hand mixing is permitted by the Engineer-in-charge in case of break-down of machineries and in the interest of the work, it shall be carried out on a water tight platform and care shall be taken to ensure that mixing is continued until the mass is uniform in colour and consistency, However in such case 10% more cement than otherwise period 1 1/2 to 2 minutes. The quantity of water shall be just sufficient to produce a dense concrete of required workability for the purpose.

2.4. Transporting & Placing the Concrete:

- 2.4.1.** The concrete shall be handed from the place, of mixing to the final position in not more than 15 minutes by the method as directed and shall be placed into its final-position, compacted and finished within 30 minutes of mixing with water i.e. before the setting commences.

- 2.4.2.** The concrete shall be laid in layers of 15 cms. to 20 cms.

- 2.5.1.** The concrete shall be rammed with heavy iron rammers and rapidly to get the required compaction and to allow all the interstices to be filled with mortar.

2.6. Curing:

- 2.6.1.** After the final set, the concrete shall be kept continuously wet if required by pounding for a period of not less then 7 days form the date of placement.

3.0. Mode of measurement and payment

- 3.1.** The concrete shall be measured for its length, breadth and depth, limiting dimensions to those specified on plans or as directed

- 3.2.** The rate shall be for a unit of **one cubic meter**.

Item No.42 :- Providing and and laying controlled cement concrete M250 and curing etc. comp. excluding the cost of form work and reinforcement for R.C.C. work for internal road..

The work shall be executed as per specification of **Item No. 3** except for the item is work of Providing and and laying controlled cement concrete M250 and curing etc. comp. excluding the cost of form work and reinforcement for R.C.C. work for internal road..

Item No. 43 :- Compaction and finishing of cement concrete road by tremix process, providing extra labour charge for tremix (Vacuum dewatering service) process on cement concrete road surface by using vacuum dewatering pump floater surface vibrator including making groove 5mm width and filling with polyvynile polymer and rough finish to surface as per instruction including leveling etc. complete..

This work shall consist **Compaction and finishing of cement concrete road by Trimix process providing extra labour charges for the trimix vacume dewatering service process on cement concrete road surface by using vacuum dewatering pump floater surface vibrator including making grooves and rough finish to surface including levelling etc. complete** as approved by the Engineer in charge.

➤ **Workmanship**

The mechanical vibrator shall be installed on channel and it shall be run in forwarded direction of concrete placing. The vibrator shall be start and shall be use as per instruction of Engineer-in-charge.

The water shall be suck by dewaterization equipment by spreading vacuum sheet on concrete after sufficient vibrator the floating water shall be sufficiently suck from concrete so that the sufficient strength of concrete shall be achieved.

The mechanical trowel shall be start after dewatering from concrete. The trowel shall be run in such a way that the required finish top surface of concrete shall be achieved mat finish or glossy finish.

Immediately after compaction, concrete shall. be protected against harmful effects of weather, including rain, running water, shocks, vibration, traffic, rapid temperature charges, frost and driving out process shall be covered with wet jute bags or the similar absorbent material approved by the Engineer-in-charge soon after the initial set, and shall be kept continuously wet for a period of not less than 14 days from the date of placement. Masonry work over the foundation concrete may be started after 48 hours of its laying but the curing of concrete shall be continued for a minimum period of 14 days.

After the final set, the concrete shall be kept continuously wet if required by pounding for a period of not less then 7 days form the date of placement. Hard and bitter water shall not be used for curing

➤ **Mode of Measurement & Payment :**

The payment will be made on **Sq.m.** basis of the finished work.

In reinforced concrete the volume occupied by reinforcement shall not be deducted. The slab shall be measured as running continuously through and the beam as the portion below the slab.

All necessary labour, materials Equipment, etc for sampling, preparing test cubes, curing etc. shall be provided by the Contractor. Testing of the materials and concrete may be arranged by the Engineer in charge in an approved laboratory at the cost of the contractor

The unit rate concrete shall include the cost of all materials, tools and plant required for mixing, placing in position, compacting, and cost water reducing concrete and mixture at 100 ml per bag of cement and making channel 75 mm x 75 mm required to level and slope and thickness of the concrete road leveling of placed concrete with surface vibrator and finishing with power floater and trowel light booming the surface and cutting Expansions joints by machine as directed by the Engineer in charge and finishing as per direction of the Engineer-in-charge, curing and all other incidental expenses for producing concrete of specified strength to complete the structure or its components as shown on the drawings and according to these specifications. They shall also include the cost of making, fixing and removing of all centering and forms required for the work.

The concrete shall be measured for its length breadth limiting dimensions to those specified on plan or as directed.

The rate shall be for a unit of one **Sq.m.**

Item No. 44 :- Supplying and installing of Dry Chemical Powder type 5 Kg. capacity fire extinguisher as per IS 2171 ISI mark with necessary fitting etc. complete.

General

This work shall consist of supplying and installing of **Dry Chemical Powder type 5 Kg. capacity Fire extinguisher** of the shape and dimensions shown on the drawings and conforming to these specifications or as approved by Engineer in charge.

1.0 Material

1.0 Dry Chemical Powder type 5 Kg. capacity Fire extinguisher

1.1 **Dry Chemical Powder type 5 Kg. capacity Fire extinguisher** nominal bore shall conform to I.S. 2171. The **Dry Chemical Powder type 5 Kg. capacity Fire extinguisher** shall be best Indian make and quality.

1.2 **Dry Chemical Powder type 5 Kg. capacity Fire extinguisher** shall be chromium polished of best quality and shall be ISI marked.

1.3 It shall be as per standard specification of Fire Safety work.

2.0 Mode of Measurement & Payment

2.1 The unit rate of **Dry Chemical Powder type 5 Kg. capacity Fire extinguisher** shall include the cost of all materials, tools and plant required for fitting, the same to specified position as per drawings and as directed by Engineer in charge finishing structure etc. and all other incidental expenses for producing **Dry Chemical Powder type 5 Kg. capacity Fire extinguisher** work to complete the structure or its components as shown on the drawings and as directed by Engineer in charge and according to these specifications. They shall also include the cost of making, fixing and removing of all scaffolding and forms required for the work.

The rate of **Dry Chemical Powder type 5 Kg. capacity Fire extinguisher** shall include the cost of all labour, materials, G.I. fittings as required, tools and plant scaffolding and all incidental expenses as described herein above.

4.2 The **Dry Chemical Powder type 5 Kg. capacity Fire extinguisher** shall be measured for its Number, limiting dimensions to those specified on plan or as directed. The rate shall be for a unit of one **Number**.

4.3 The payment shall be made on **Number** basis of the finished work.

Item No. 45 :- Providing carbon dioxide type fire extinguisher 4.50 Kg. capacity with IS mark and test certificates of explosive department of Nagpur..

General

This work shall consist of supplying and installing of **Carbon dioxide type fire extinguisher 4.5 Kg. capacity** of the shape and dimensions shown on the drawings and conforming to these specifications or as approved by Engineer in charge.

1.0 Material

1.0 Carbon dioxide type fire extinguisher 4.5 Kg. capacity

1.1 **Carbon dioxide type fire extinguisher 4.5 Kg. capacity** nominal bore shall conform to I.S. 2171. The **Carbon dioxide type fire extinguisher 4.5 Kg. capacity** shall be best Indian make and quality.

1.2 **Carbon dioxide type fire extinguisher 4.5 Kg. capacity** shall be chromium polished of best quality and shall be ISI marked.

1.3 It shall be as per standard specification of Fire Safety work.

2.0 Mode of Measurement & Payment

2.1 The unit rate of **Carbon dioxide type fire extinguisher 4.5 Kg. capacity** shall include the cost of all materials, tools and plant required for fitting, the same to specified position as per drawings and as directed by Engineer in charge finishing structure etc. and all other incidental expenses for producing **Carbon dioxide type fire extinguisher 4.5 Kg. capacity** work to complete the structure or its components as shown on the drawings and as directed by Engineer in charge and according to these specifications. They shall also include the cost of making, fixing and removing of all scaffolding and forms required for the work.

The rate of **Carbon dioxide type fire extinguisher 4.5 Kg. capacity** shall include the cost of all labour, materials, G.I. fittings as required, tools and plant scaffolding and all incidental expenses as described herein above.

4.2 The **Carbon dioxide type fire extinguisher 4.5 Kg. capacity** shall be measured for its Number, limiting dimensions to those specified on plan or as directed. The rate shall be for a unit of one **Number**.

4.3 The payment shall be made on **Number** basis of the finished work.