# AGGREGATE

## **Flakiness & Elongation Test Gauges**

#### As Per IS 2386 (P-I)

Specification : Aggregates which are flaky and/or elongated will often lower the work ability of a concrete mix and may also affect long term durability. In bituminous mixtures, flaky aggregates make for a harsh mix and may also crack and break up during compacting by rolling. The flakiness of aggregate is determined by measuring the thickness of individual particles. Hence we offer thickness gauge and length gauge to check flakiness and elongation index of the aggregate respectively.



SL-AG-002

Model	Description
Flakiness Gauge <b>SL-AG-001</b>	Used for Determination of flakiness index of coarse aggregates. It consists of a steel frame with a sliding panel having slots of different dimensions
Elongation Gauge <b>SL-AG-002</b>	Used for determination of elongation index of aggregates. It consists of a steel frame having slots of different dimensions. The frame is fixed on a hard wooden base.

# Cylindrical Measures SL-AG-003

AS PER IS: 2386 (Part- III)

Determines bulk density or unit weight of aggregates.

Specifications: Calibrated cylindrical measures of sheet iron with handles. Consists of 3 measures one each 3 liters capacity, 15 liters capacity and 30 liters capacity. Complete with one tamping rod, round, 16mm dia. and 600mm long, one end rounded.

### Metal Measures SL-AG-004

AS PER IS: 1199-1159.

For the determination of the unit weight of aggregate.

Specifications: Made from sheet iron, complete with handle, capacity 10litres or 20litres.

#### **Density Basket SL-AG-005**

IS 2386 (PART-III) & BS 812

For Density Tests on Aggregates as per Procedure Laid Down.

Specification :Made of Brass/GI with Stainless steel Wire Mesh 6.3mm/4.75mm size Ruggedly Constructed, Approximately 20cm dia x 20cm high. Complete with Handle.

## Riffle Sample Divider SL-AG-006

As Per IS: 1607-1960

**Specification**: Riffle sample divider is required for the rapid collection of true representative samples from aggregates, sand and fillers. Riffle Sample Divider consists of a metal box fitted with a series of chutes of equal width which discharge the material alternatively in opposite directions into separate pans. The chutes of the riffle are steep enough to allow rapid flow of the material. The sample divider is supplied with two containers and a sampling scoop.



SL-AG-003



SL-AG-004



SL-AG-005



SL-AG-006

Model SL-AG-006	Description
A. Riffle Sample Divider	Riffle Sample Divider having slots 10mm each.
B. Riffle Sample Divider	Riffle Sample Divider having slots 13mm each.
C. Riffle Sample Divider	Riffle Sample Divider having slots 20mm each.
D. Riffle Sample Divider	Riffle Sample Divider having slots 25mm each.
E. Riffle Sample Divider	Riffle Sample Divider having slots 40mm each.
F. Riffle Sample Divider	Riffle Sample Divider having slots 50mm each.

# Aggregate Crushing Value SL-AG-007

#### As Per IS 2386 (P-IV)

Specification :The selection of proper aggregate for a given application is essential to attain the desired quality. Various characteristics are required to be determined for the selection of appropriate aggregate from the wide range available. Aggregate crushing value test apparatus is used for measuring resistance of an aggregate to crushing. Made of Mild Steel comprising of: Cylindrical Cell, 150mm internal dia x 130 to 140mm height, Plunger, 148mm dia x 100 to 115mm height, Base Plate, 200 to 230mm square x 6mm thickness, Tamping Rod, 16mm dia x 450 to 600mm length. Metal Measure, 110mm internal dia x 180mm height





Aggregate Impact Value Tester SL-AG-008

# As Per IS 2386 (P-IV)

**Specification**: Aggregate Impact Value Test Apparatus is used for determining the aggregate impact value. The Sturdy Construction consists of a base and support columns to form a rigid framework around the quick release trigger mechanism to ensure an effective free fall of the hammer during test. The free fall can be adjusted through 380±5mm. The hammer is provided with a locking arrangement. Aggregate impact value test apparatus is supplied complete with a cylindrical measure of 75mm dia x 50mm depth, an automatic blow counter and a tamping rod.

# Determination of Specific Gravity SL-AG-009

#### As Per IS: 2386 (Part III)

**Specification** :The density of hardened concrete specimens such as cubes and cylinders can be quickly and accurately determined using a Specific Gravity / Buoyancy Balance. The apparatus consists of a rigid support frame, incorporating a water tank mounted on a platform. A mechanical lifting device is used to raise the water tank through the frame height immersing the specimen suspended below the balance in this Buoyancy Balance. Any type of Electronic Balance fitted with an under bench weighing facility can be fitted. The balance supplied can also be used as a standard weighing device, thus providing a versatile and comprehensive weighing system in the laboratory. (i) Cap. 5 Kg (5000gm) Accuracy 0.5 gm (500mg) (ii) Cap. 15kg (15000gms) Accuracy 1 gm (1000 mg)



SL-AG-009

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# AGGREGATE



As Per IS 2386 (P-IV) ASTM: C131, AASHTO T-96

**Specification** :Los Angeles Abrasion Testing Machine is used for determining the resistance to wear of small size coarse aggregates and crushed rock. The abrasion testing machine consists of a Closed hollow cylindrical steel drum rotating around its horizontal axis on ball bearing units mounted on a sturdy base framework at a speed of between 30-33 rpm. Supplied complete with subtracting revolution counter to preset the number of revolutions, a sample collection tray for removal of the sample on completion of testing and set of 12 abrasive charges. The los Angeles Abrasion testing machine is fitted with 1 HP Motor. Suitable for Operation on 440V, Three Phase, 50Hz, AC Supply.

# Devel Abrasion Testing Machine SL-AG-011

ASTM D2-33 & IS 2386 (PART IV)

For The Determination of Resistance of Aggregates to Wear by Abrasion.

**Specification :** It consists of two hollow cylinders closed at one end and provided with Fitting covers at the either end. These cylinders are mounted an a shaft 0 at angle of 30 with the axis of rotation of the shaft. The shaft rotates at 30-33 RPM. Through a reduction gear operated by a motor and is provided with a revolution counter. Complete with Abrasive Charge consisting of 12 Nos. Hardened steel Balls of 48mm dia. Suitable for operation on 440 Volts, Three Phase, 50 Cycles, A.C. supply.

Note : Option of Digital Preset Counter can be provided at an Extra Cost

# Dorry Abrasion Testing Machine SL-AG-012

### BS 812

For Testing Aggregates for Resistance to Abrasion.

Specification : It consists of a disc rotating about a shaft connected to a reduction gear box coupled to a motor. The disc rotates at 28-30 RPM. Under the rotating disc is a tray with an outlet to facilitate the removal of sand. Two Conical Hoppers are mounted on a bracket fixed to the circular tray. An arrangement is made for start and stop the flow of sand. Two containers with weights are supplied to keep the specimens pressed against the rotating disc. Suitable for operation on 220 V, 50 cycles, A.C. Supply.

# Pug Mill for grinding Lime Mortar SL-AG-013

This is used for determination of resistance to wear for Cement & Concrete flooring tiles. Tiles specimen of size 7.06 cm x 7.06 cm is pressed face-wise under specific load on a grinding path and abrasive powder is evenly spread on the rotating grinding disc the second parallel side of the tile is subjected to wear for similar number of rotations. The wear of the tile is measured on a thickness gauge



SL-AG-010





SL-AG-012

#### specifically made for the purpose.

The machine consists of a disc rotating at a speed of 30 R.P.M. in a circular tray. A bracket is provided to hold the specimen. A counter balance lever loads the specimen. Load applied is 30 Kgf. A funnel is fitted to evenly spread abrasive powder on the grinding path. A Preset Counter automatically stops the machine after 22 revolutions. This counter is Re-adjustable. The machine works on 440 V A.C. Three Phase electrical supply. On Request machine to operate on 230 V A.C. Supply can also be supplied.

# Laboratory Jaw Crusher SL-AG-014

The laboratory jaw Crusher is designed for fast crushing of Aggregates, Ores, Minerals, Coal, Coke, Chemicals and other similar materials. It is compact and of rugged construction for general laboratory of small pilot plant operations.

Two jaws of manganese steel are provided in this laboratory jaw Crusher. The moveable jaw produces tow blows for every revolution, thus reducing over sizing to a minimum. A combination of forward and downward strokes with a rocking action exerts pressure on the coarser material, yet permits the finished material to pass through the jaws. A hopper is provided at the top for feeding material The smooth jaws ensure a uniform product and easy cleaning is possible.

Jaw Size: 100x150, Feed Size: 25 To 30, Discharge Size: 6mm To 15mm 1lhr. 250k9, Motor, 3hp,3ph.

# Laboratory Pulveriser SL-AG-015

The Laboratory Pulverize is a disc type grinder, designed to grind virtually any material to produce a fine mesh sample in one operation. The instrument is useful for assaying, mining and for metallurgical, guarrying, aggregate processing, chemical, geological and industrial laboratories. It is a self contained grinder, with a rotary disc, having a planetary movement in a vertical plane. This feature gives added life to the moving parts and produces a sample of uniform fineness. Grinding is done between two discs-one stationery and the other revolving eccentrically at high speed. The discs are made from heat treated machinate metal. With the help of a convenient hand wheel, the size of the final product can be adjusted. This can be done, even while the machine is in operation. A self locking device holds the hinged grinding chamber in place and affords easy and guick access to it, for removal of ground samples and for cleaning. The Pulverize has a capacity of reducing about half of a kilogram of a guartz type sample to 100 mesh in a about a minute. The Pulverser is supplied complete with a 3 H.P motor, a starter, a "V" belt pulley drive and mounting wired for 440V, 3 Ph, 50Hz, Disc Diameter: 175m, Maximum Feed size: 6mm. Yield: 250gms./min, Size of Finished Product: 100mesh



SL-AG-014



SL-AG-015

