Los Angeles Abrasion Tester

LT-A0060 / LT-A0061 | Standard and safety cabinet models

Preset revolution counter • Position lock • Sample collection tray



31–33 rpm

DRUM ROTATION SPEED

711 ± 5 mm

DRUM INTERNAL DIAMETER

EN 1097-2 • ASTM C131/C131M • ASTM C535 • AASHTO T96

LT-A0060 / LT-A0061

Photograph and Machine Components

Standard model: steel drum, sample cover, controls and collection tray

The Los Angeles tester assesses coarse aggregate resistance to fragmentation by impact and abrasion. The photograph shows the standard LT-A0060 model. LT-A0061 has a safety cabinet surrounding the working area.

STEEL DRUM

Aggregate and the prescribed steel-ball charge move together inside the rotating drum.

CONTROL PANEL

The counter tracks target revolutions. The motor stops when the preset count is reached.



COLLECTION TRAY

Facilitates collection of aggregate and steel balls after the test.

SAMPLE COVER

The removable cover gives loading access and closes the opening during testing.



Drum opening, sample cover and fastenings



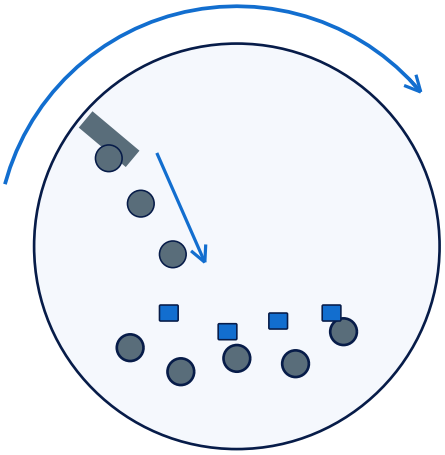
Revolution counter and operating controls

LT-A0060 / LT-A0061

Fragmentation by Impact and Friction

Prepare sample • Select the ball charge • Rotate • Calculate mass loss

AGGREGATE + STEEL-BALL CHARGE



31–33 rpm

REPEATED IMPACT AND FRICTION

SAMPLE: COARSE AGGREGATE BY THE METHOD

RESULT: LOS ANGELES LOSS VALUE

OPERATING PRINCIPLE • REPRESENTATIVE DRUM SECTION • NOT TO SCALE

Select Sample and Charge

Match grading to the method. Record initial mass and select the prescribed ball count and charge mass.

Set the Revolutions

Secure the cover and release the position lock. Enter target revolutions; the motor stops at cycle completion.

Evaluate the Loss

Empty the material into the tray. Sieve, dry and weigh as prescribed before calculating the loss value.

Drum rotation produces repeated movement of aggregate and steel balls. Impact and friction cause fragmentation and the formation of fine material. Weigh the remaining material after processing; loss relative to initial mass allows comparisons between aggregate sources under the same test conditions.

Test Method and Ball Charge

EN 1097-2 assesses coarse aggregate fragmentation resistance using the Los Angeles method. ASTM C131/C131M covers smaller coarse aggregate sizes; ASTM C535 covers large-size coarse aggregates.

LT-A0062 contains 12 balls and LT-A0063, the EN set, contains 11. Select the actual ball count, total charge mass and revolutions according to the method and sample grading.

Position Lock and Safety Cabinet

The position lock holds the drum opening in the loading position. The machine cannot operate while the lock is engaged. Check the cover and lock status before starting.

The LT-A0061 safety cabinet model stops when its door is opened. After the test, empty the drum, collect the material from the tray and clean the drum and balls for the next sample.

Model Options and Technical Data

LT-A0060 / LT-A0061 • Machine versions and separate ball sets

Product Code	Model	Dimensions	Weight
LT-A0060	Standard	100 × 90 × 100 cm	400 kg
LT-A0061	Safety cabinet	110 × 115 × 125 cm	500 kg

Ball Set	Count / Method	Diameter	Each Ball	Total Mass
LT-A0062	12 / ASTM, UNI, CNR	Ø47 mm	0.390–0.445 kg	5 ± 0.025 kg
LT-A0063	11 / EN	Ø45–49 mm	0.400–0.445 kg	4.690–4.860 kg

Common Specification	Value / Description
Drum Internal Diameter	711 ± 5 mm
Drum Internal Length	508 ± 5 mm
Drum Rotation Speed	31–33 rpm
Control and Stopping	Preset revolution counter / automatic stop
Power Supply	220 V, 50–60 Hz, single phase

Match the Abrasive Charge to the Applied Method

Ball-set capacity does not mean all balls are used in every test. Select the charge for the specimen grading; apply relevant method conditions for EN 13450 railway ballast evaluations.

From Aggregate to Los Angeles Loss Value

01
Prepare
Select the grading and record initial mass.

02
Load
Add sample and ball charge; secure the cover.

03
Rotate
Release lock, set target revolutions and start.

04
Evaluate
Sieve, dry, weigh and calculate mass loss.

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