Unit Weight Measures

Volume options of 3, 5, 7, 10, 15, 20 and 30 litres

Rigid metal body • Known volume • EN 1097-3 and EN 12350-6



3-30 L

VOLUME OPTIONS

7 models

DIFFERENT CAPACITIES

Loose bulk density of aggregates • Compacted fresh concrete density with suitable models

3 / 5 / 7 / 10 / 15 / 20 / 30 L

Photographs and Body Details

Different volumes, level top rim and two carrying handles

Unit weight measures support density calculations using the net mass of a specimen placed in a known volume. A rigid metal body maintains volume stability; the smooth internal surface simplifies filling, strike-off and cleaning.

LEVEL TOP RIM

The rim is parallel to the base and supports consistent strike-off of excess material.

TWO CARRYING HANDLES

Side handles help move the empty or filled measure in a balanced manner.



KNOWN VOLUME

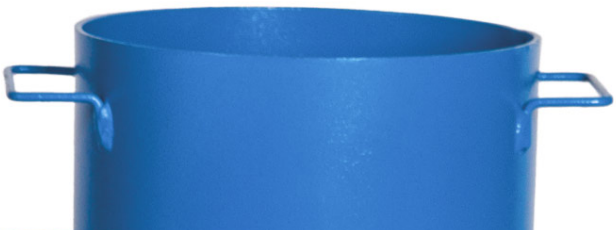
The calibrated measure volume is used to convert net specimen mass into density.

RIGID METAL BODY

Robust construction supports dimensional stability during repeated use; protect the body from impacts.



Front measure rim, internal surface and carrying handles



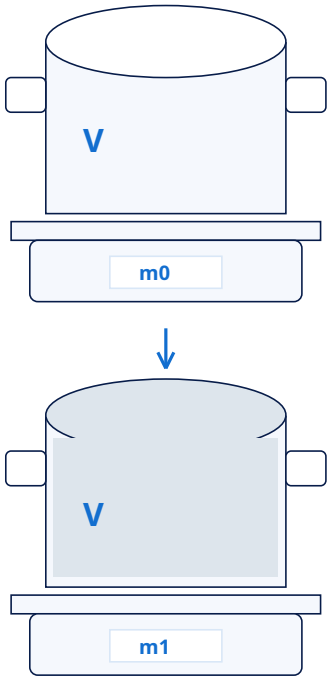
Upper rim and side handle of the larger measure

3 / 5 / 7 / 10 / 15 / 20 / 30 L

Operating Principle and Density

Empty mass • Filling for the method • Filled mass • Calibrated volume

WEIGH THE EMPTY AND FILLED MEASURE



EMPTY MEASURE

FILLED MEASURE

$$\rho = 1000 \times (m1 - m0) / V$$

WEIGHING ARRANGEMENT • SCHEMATIC

Record the Empty Mass

Weigh the clean, dry measure. Record empty mass as m0 and calibrated volume as V.

Fill and Strike Off

Fill with aggregate or concrete using the applicable method. Level the material with the top rim.

Weigh and Calculate

Record filled mass as m1. Divide net specimen mass by the calibrated volume to calculate density.

Subtract empty measure mass from filled measure mass, then divide net specimen mass by calibrated volume. Use loose filling for aggregate and the required compaction for fresh concrete. The balance in the schematic represents the measurement arrangement.

Density from Mass and Volume

$\rho = 1000 \times (m1 - m0) / V$

m0: empty measure mass (kg)
m1: filled measure mass (kg)
V: calibrated volume (L)
ρ: density (kg/m^3)

Apply the factor of 1000 when volume is in litres. 1 L = 0.001 m^3.

Aggregate and Fresh Concrete

EN 1097-3 covers loose bulk density and voids in dry aggregates. Void calculations also require aggregate particle-density data.

EN 12350-6 covers the density of compacted fresh concrete. Select a measure volume suitable for the aggregate size and applicable test method.

3 / 5 / 7 / 10 / 15 / 20 / 30 L

Specifications and Model Selection

Seven capacities • 3, 5, 7, 10, 15, 20 and 30 litres

Product Code	Volume (L)	Size (mm)	kg
LT-C0075	3	150 × 210 × 210	3.7
LT-A0054	5	170 × 240 × 250	5
LT-C0076	7	190 × 260 × 270	6.3
LT-C0077	10	210 × 290 × 310	7.7
LT-C0078	15	250 × 340 × 330	10
LT-A0056	20	270 × 370 × 380	12
LT-C0079	30	310 × 410 × 430	20

Technical Feature	Construction / Function
Body	Rigid metal with a calibrated volume
Internal Surface	Smooth; easy filling, emptying and cleaning
Top Rim / Handling	Rim parallel to base; two carrying handles
Relevant Test Methods	EN 1097-3 / EN 12350-6

Volume and Weighing Checks

Clean the measure and record empty mass before testing. Use the calibrated volume; check it after impact or deformation. Select a model for the aggregate size and test method.

Test Preparation and Use Workflow

01
Weigh Empty
Record the mass of the clean, dry measure.

02
Fill the Measure
Fill and prepare for the applicable method.

03
Strike Off and Weigh
Level with the rim and record filled mass.

04
Calculate Density
Divide net mass by calibrated volume.

Product Page | liyatest.com.tr/en/urun/unit-weight-measure/