CEMENT > PHYSICAL PROPERTIES

DRY MORTAR BULK DENSITY APPARATUS

Code : C045



- Determines the bulk density of building lime by allowing the material to fall from a standardized height into a calibrated container, providing reliable mass-per-unit-volume values essential for production control and conformity assessment.
- Used to characterize how lime behaves in storage, conveying and dosing systems, supporting the design and verification of silos, hoppers, feeders and packaging units by basing all calculations on the actual bulk density of the product.
- Assists in the correct sizing and capacity calculation of mixing and batching equipment for lime and lime-based mortars, ensuring mixer volumes, feeding systems and weighing arrangements are matched to real bulk density rather than idealized theoretical values.
- Follows the EN 459-2 test principle in which a lime sample is discharged from a hopper through a flap or trap, falling freely from a fixed height into a volumetric cylindrical container, then leveled and weighed to calculate bulk density in kg/m^3.

- The combination of cylindrical litre vessel, intermediate piece with flap and spring-loaded release mechanism ensures uniform filling conditions, reduces operator influence, and improves repeatability and reproducibility between different laboratories.
- Specifically developed for building limes as defined in EN 459-1, the apparatus is suited for quality control in lime production plants, independent laboratories, and institutions performing research and development on lime and lime-based materials.
- The mechanical, power-free design makes the apparatus robust, simple to install on a standard laboratory bench, and easy to maintain, while remaining fully compatible with standard laboratory balances and ancillary cement and lime test equipment.

STANDARDS

EN 459-2

TECHNICAL SPECIFICATIONS

- Application: Bulk density determination of building lime
- Test method: Free fall of lime sample into volumetric container
- Standard method: EN 459-2 bulk density of building lime
- National method: DIN 1060 bulk density of lime
- Container type: Cylindrical volumetric vessel
- Container capacity: 1 L (1 dm^3)
- Discharge system: Hopper with intermediate piece and flap / trapdoor
- Release mechanism: Spring-loaded yoke / release lever
- Test material: Building limes as defined in EN 459-1
- Operation: Bench-mounted, manual, power-free apparatus

ORDERING INFORMATION

Item Name	Item Code
DRY MORTAR BULK DENSITY APPARATUS - EN 459-2	C045X00EH