

AGGREGATE > PHYSICAL PROPERTIES

AGGREGATE CRUSHING VALUE (ACV)

Code: R210



- The Aggregate Crushing Value (ACV) apparatus is used to assess the resistance of aggregates to crushing under a gradually applied compressive load, providing a relative measure of aggregate strength
- This test is essential for evaluating the mechanical strength of aggregates used in road construction, concrete production, and other civil engineering applications, ensuring material suitability and performance.
- The apparatus comprises a steel cylinder, plunger, base plate, cylindrical measure, and tamping rod, all manufactured to precise specifications to guarantee accurate and repeatable results.
- Two apparatus sizes are available: a 75 mm diameter set for aggregates passing a 9.5 mm sieve and a 150 mm diameter set for aggregates passing a 12.7 mm sieve and retained on a 9.5 mm sieve, suitable for the Ten Percent Fines Value (TFV) test.
- The test involves compacting a specified mass of aggregate into the steel cylinder, applying a standard load via the plunger, and determining the percentage of crushed material passing a 2.36 mm sieve, which indicates the aggregate's crushing value.



- An ACV less than 30% is generally considered acceptable for road construction; higher values may indicate weaker aggregates unsuitable for heavy-duty applications.
- Sieve should be ordered separately.

STANDARDS

BS 812-110

TECHNICAL SPECIFICATIONS

Set	AGGREGATE CRUSHING VALUE APPARATUS (ACV) - Ø 75 mm	AGGREGATE CRUSHING VALUE APPARATUS (ACV) - Ø 150 mm
Code	R210X07BH	R210X15BH
Test	Used for aggregates passing 9.50 mm sieve	Used for aggregate passing 12.70 mm and retaining on 9.50 mm sieves (Ten Percent Fines Value Test)
Steel Cylinder	Ø 78 mm	Ø 154 mm
Plunger	Ø 76 mm	Ø 152 mm
Tamping Rod	Ø 8 x 300 mm	Ø 16 x 600 mm
Measure	Ø 57 x 90 mm	Ø 115 x 180 mm
Base Plate	110 x 110 x 10 mm	200 x 200 x 10 mm

ORDERING INFORMATION

Item	Code
AGGREGATE CRUSHING VALUE APPARATUS (ACV) - Ø 75 mm	R210X07BH
AGGREGATE CRUSHING VALUE APPARATUS (ACV) - Ø 150 mm	R210X15BH



R210 DATASHEET

STEEL CYLINDER for ACV - Ø 75 mm	R210P001H
PLUNGER for ACV - Ø 75 mm	R210P002H
CYLINDRICAL METAL MEASURE for ACV - Ø 75 mm	R210P003H
TAMPING ROD for ACV - Ø 8 x 300 mm	R210P004H
BASE PLATE for ACV - 110 x 110 mm	R210P005H
STEEL CYLINDER for ACV - Ø 150 mm	R210P006H
PLUNGER for ACV - Ø 150 mm	R210P007H
CYLINDRICAL METAL MEASURE for ACV - Ø 150 mm	R210P008H
TAMPING ROD - Ø 16 x 600 mm	B020P004H
BASE PLATE for ACV - 200 x 200 mm	R210P010H