

## MARSHALL STABILITY TEST

### BE 83

The Marshall Stability Test, conducted using the Marshall Apparatus, is the most widely used method by highway departments, contractors, engineers, testing laboratories, and governmental agencies to evaluate the strength and quality of bituminous paving mixtures. This test measures the resistance to plastic flow of cylindrical specimens of hot mix asphalt (containing asphalt or tar and aggregate up to 25.4 mm in size) when loaded on their lateral surface. It helps determine the mixture's stability (maximum load it can withstand) and flow (deformation under load), ensuring the asphalt mix is suitable for road construction and can withstand traffic loads without excessive deformation

### FOLLOWING STANDARD

EN 12697-34, 12697-23, 12697-12 (Method A); ASTM D1559, D5581, D 6927, D 6931; AASHTO T245

### DESCRIPTION

Marshall Machine load frame is available two speeds and also two segments digital and manual two type test mould normal and modified.

MODEL	COMPONENT	DETAILS
BE 83-01-A	Marshall Load Frame	Capacity 50 kn both are used normal and modified (single speed 50.8mm/min)
BE 83-01-B	Marshall Load Frame	Capacity 50 kn both are used normal and modified (Two speed 50.8mm/min & 61mm/min)
BE 83-02-A	Breaking Head Stability Mould Normal (fitting 4")	with a dial gauge (having 25 mm travel and 0.01 mm least count), for flow measurement
BE 83-02-B	Breaking Head Stability Mould Modified (fitting 6")	with a dial gauge (having 25 mm travel and 0.01 mm least count), for flow measurement
BE 83-03-A	Compaction Mould with base plate, 4-inch (101.6 mm) diameter x 2.5-inch (63.5 mm) height	Steel, cylindrical (3 nos)
BE 83-03-B	Compaction Mould with base plate, 6-inch (152.4 mm) diameter x 3.75-inch (95 mm) height	Steel, cylindrical (3 nos)
BE 83-04-A	Compaction Pedestal NORMAL MARSHALL	Manual Operation, comprising a Steel Plate capped on a wooden post. A Mould Clamp is fitted to the top of the plate
BE 83-04-B	Compaction Pedestal MODIFIED MARSHALL	Manual Operation, comprising a Steel Plate capped on a wooden

		post. A Mould Clamp is fitted to the top of the plate
BE 83-05-B	Compaction Hammer Normal Marshall	weight 4.5 kg with a free fall of 457 mm (2 Nos)
BE 83-05-B	Compaction Hammer Modified Marshall	weight 10.21 kg with a free fall of 457 mm (2 Nos)
BE 83-06-A	Load Transfer Bar Normal	(4-inch/101.6 mm)
BE 83-06-B	Load Transfer Bar Modified	(6-inch/152.4 mm)
BE 83-06	Proving Ring (for Manual)	50 kN
BE 83-07	Dial Gauge (for Manual)	25 mm and 0.01 mm
BE 83-07	Load Cell (for Digital)	50 kN
BE 83-08	LVDT Used for Digital	25 mm and 0.01mm least count
BE 83-09	Digital Display	Used for Digital machine
BE 83-10	Software	All data come to pc see graph and data saved

