

TILES & ADHESIVE TESTING MACHINE

MODEL NO. EM-AG/STB/L – 10 TO 200

Tiles | Adhesive | Concrete Block | Civil Apps

EQVIMECH has developed this test fixture for determining the adhesive strength of plaster or adhesives on tiles (for example, according to EN 1348). Adhesion tests at an angle of 90° are possible, while several tiles can be bonded to the concrete slab simultaneously and pulled off one after the other through simple position changes. EQVIMECH provides other solutions for tests on tiles, such as the 3-point flexure test and determination of shear strength according to **IS 15477 | IS 13630 | IS 516**

To determine the flexural strength of concrete using a simple beam with third-point loading. Results are reported as the modulus of rupture (MOR), which is the flexural strength of the concrete sample just before it yields.

FRC offers several advantages over rebar or wire mesh reinforced concrete including increased crack resistance, ductility, energy absorption, impact resistance and residual strength.



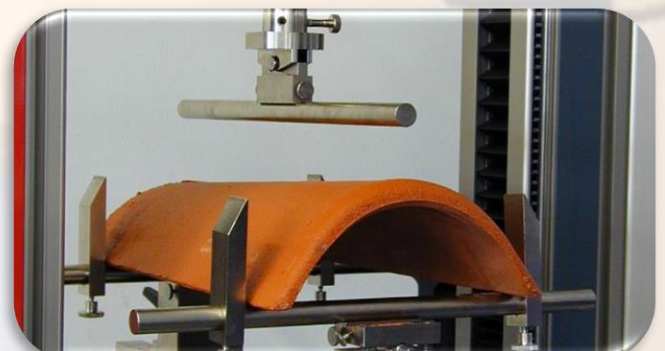
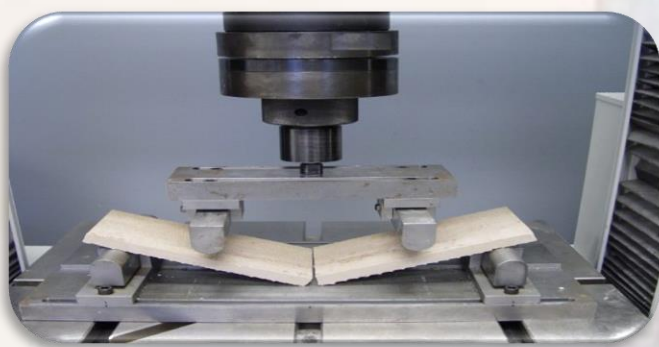
Testing Procedure

- Place the specimen in the flex apparatus as described in the standard.
- Apply a load between 3 and 6% of the estimated ultimate load. Make sure the gap between the specimen and the supports is not any greater than 0.10 mm (0.004 in).
- Make sure the load indicator is set to zero prior to starting the test.
- Apply load continuously, at a constant rate, without shock until failure.
- Record the maximum load carried by the specimen during the test.



Calculations: (Software interface)

- Tensile Adhesive Strength
- Modulus of Rupture
- Shear Strength
- Deformation at Load
- Stress vs Strain
- Load at Peak
- Deflection at Peak
- Strength at Peak
- Strength Ratio etc. (as per customer requirement)



Recommended Equipment:

Testing Equipment	• Model No. EM – AC/SS/TL/B – 10 to 200
Testing Standards	• IS 15477
	• IS 13630
	• ASTM C 1027
	• ASTM C 373
	• IS 1443
	• ISO 10545
Accessories	• Multiple Load cells



Technical Specification:

Capacity	10 kN to 200 kN
Load cells available	1kN to 200kN (100kg – 20000kg)
Maximum crosshead travel	1000 mm
Testing speed range	0.1 to 500 mm/min
Maximum crosshead speed at 10 kN	500 mm/min
Return speed	0.1 to 500 mm/min
Frame stiffness	10kN/mm to 200kN/mm (as per model)
Dimensions (H × W × D)	1800 mm × 1100 mm × 450 mm
Weight (approx.)	400 - 800 kg (as per model)
Display	Graphical with test data output through inbuilt software
Power	220 V, Single phase, 50 Hz
Accuracy	± 0.5 % at 2 to 100 % Full Load
Standard Speed	0.5-500mm/min *Optional through computer software
Grip to Grip Suspension	Min 25 mm and Max.900 mm (applicable only with vice type standard grip)
Digital Load Suspension	LCD Display
Drive Mechanism	Variable Frequency Drive
Safety	Yes
Grippers	Vice Type (Screw Side Action Tensile Grips) Flexural Wedge Type Roller Type Compression Plates Pneumatic 3 – Point Bend Test
Communication Converter	RS 232
Material	Concrete, Marble/ Tiles, Rod, Pipe
Finish	Power coated / Zinc plating for corrosion resistant finish

