

PLASTIC TESTING MACHINE

MODEL NO. EM – ACS/TL – 1 TO 10

Plastics | Elastomers

EQVIMECH’s materials testing systems are found throughout the polymer industry. Our standard line of single and dual column electromechanical systems can test a wide range of materials from very thin films to very robust glass filled plastics. These systems can perform a wide range of plastic tests including tensile, compression, bend, puncture, peel, coefficient of friction, tear, creep, and many others. Our software is preloaded with common test methods such as ASTM D790 (flexural strength of plastics), ASTM D638 (tensile strength of plastics), ASTM D412 (tensile strength of elastomers), and ASTM D882 (tensile strength of films).

ASTM | IS | ISO



One of the most common specifications that our customers follow is ASTM D882, the Standard Test Method for Tensile Properties of Thin Plastic Sheeting. This test is very similar to ASTM D638 test whereby plastic material is pulled until it breaks in order to measure elongation, tensile modulus, tensile yield strength, and tensile strength at break. Unlike ASTM D638, however, D882 is designed specifically for thin sheeting and film less than 1 mm (0.04”) thick.

Procedure:

1. Load your sample into your grips.
2. Enter your specimen geometry (width, thickness, and gage length) into your controller.
3. Begin grip separation as specified in the standard and continue until specimen break.



Calculations: (Software interface)

1. Tensile Strength
2. Elongation at Yield
3. Elongation at Break
4. Nominal Strain at Break (Grip Separation)
5. Modulus of Elasticity
6. Secant Modulus etc. (as per customer requirement)

Recommended Equipment

Testing Equipment	<ul style="list-style-type: none"> • Model No. EM – ACSL – 1 to 10
Testing Standards	<ul style="list-style-type: none"> • ASTM D 790 • ASTM D 638 • ASTM D 695 • ASTM D 882 • ASTM D 1876 • ASTM D 1894 • ASTM D 2290 and more
Accessories	<ul style="list-style-type: none"> • Specimen Cutting Die • Extensometers



Technical Specification:

Capacity	1 kN to 10 kN
Load cells available	50N to 10kN (5kg – 1000kg)
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
Dimensions (H × W × D)	1200 mm × 500 mm × 450 mm
Weight (approx.)	115 kg
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 Pneumatic 3 – Point Bend Test Peel Adhesion Test Burst or Puncture Coefficient of Friction Test
Communication Converter	RS 232
Material	Plastic, Tap, PVC Pipe, Foil, Wire insulation etc.
Finish	Power coated / Zinc plating for corrosion resistant finish

