

**Indentation Load Deflection
Indentation Force Deflection**

**Firmness Properties of Flexible
Polyurethane Foam cushions**

Reference Standards: ASTM D5672 or ISO 2439

This test method focuses on IFD or ILD tests of polyurethane foams and is intended to provide a quick and simple method to screen flexible polyurethane foams for determination of firmness grade.

Foam Testing of IFD variables (indentation force deflection) using 1000CM test system.

A wide range of load frames is available for different sample sizes.



www.testresources.com

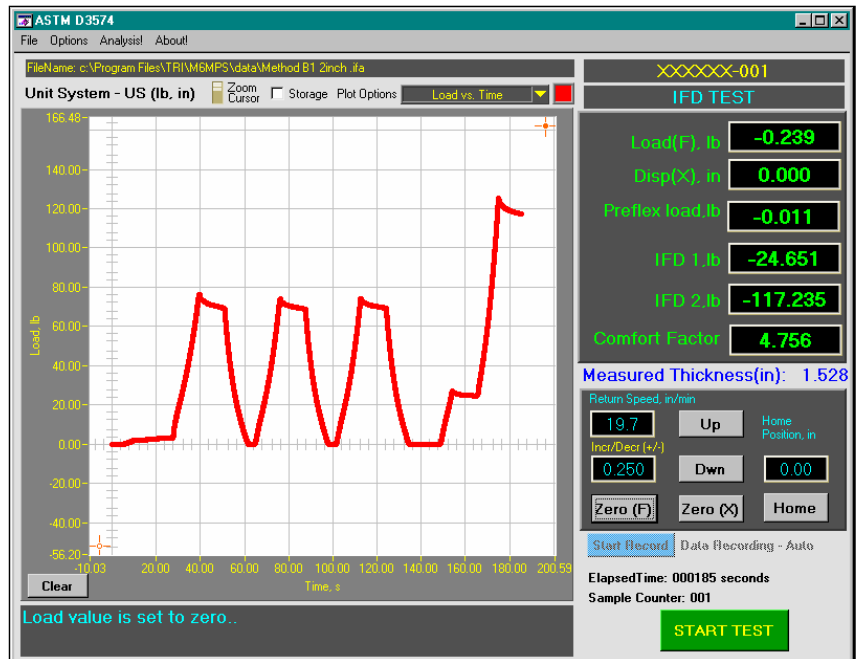
Call 800 430 6536

Typical Configuration

- Box Style Test Machine or Dual Column Universal Test Machine
- Load cell sized to test samples
- M Plus Software
- M Plus D3574 Module
- G223 Indenter Foot – various sizes



Dual Column 2000M Universal Test Frame with IFD fixtures

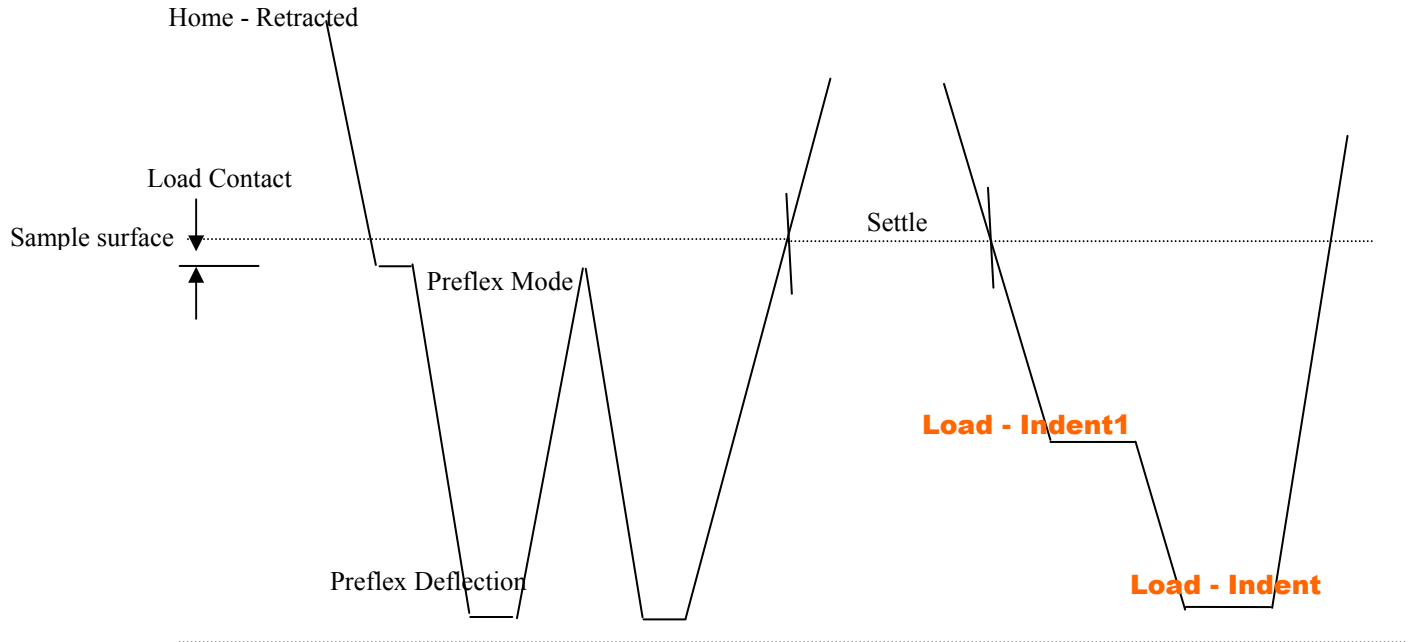


M Plus Software for IFD test

M Controller features two modes to choose from:

PC based Mode – includes standard controller firmware with M Plus Software. This package allows users to perform a wide range of tests using standard tensile and compressive software modules, including an IFD mode on foam products and materials. The M controller includes a LCD display with operator input keypad.

Standalone Mode – embedded firmware executes all test tasks and at the conclusion of the test, final results are presented. Standalone parameters shown below:



Set up parameters

Parameter	Example	Description
Initial Thickness	4.00	Default or measured mode
Settle Time	6	0 to 15 minutes
Contact Force	1	0.1 to 5 lb
Preflex Speed	9.44	0 to max inches/min
Preflex Dwell	10	0-20 sec
Preflex Deflection	77	50 to 90%
Indent Speed	1.96	0 to max inches/min
IFD1	25	5 to 95%
IFD2	65	5 to 95%
IFDT	60	seconds
Flimits	650 pounds	Set maximum load value for test.