

**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

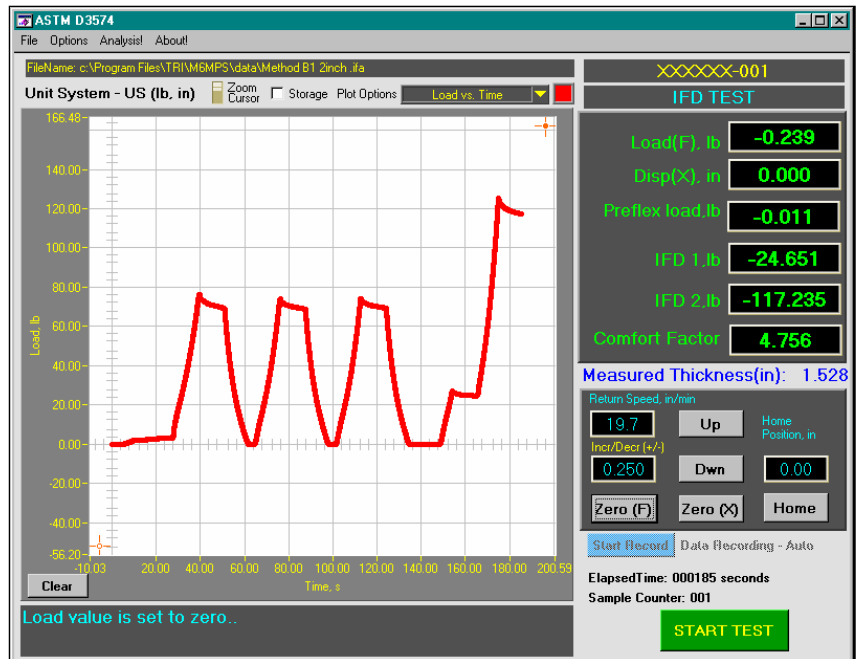
Call 800 430 6536

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

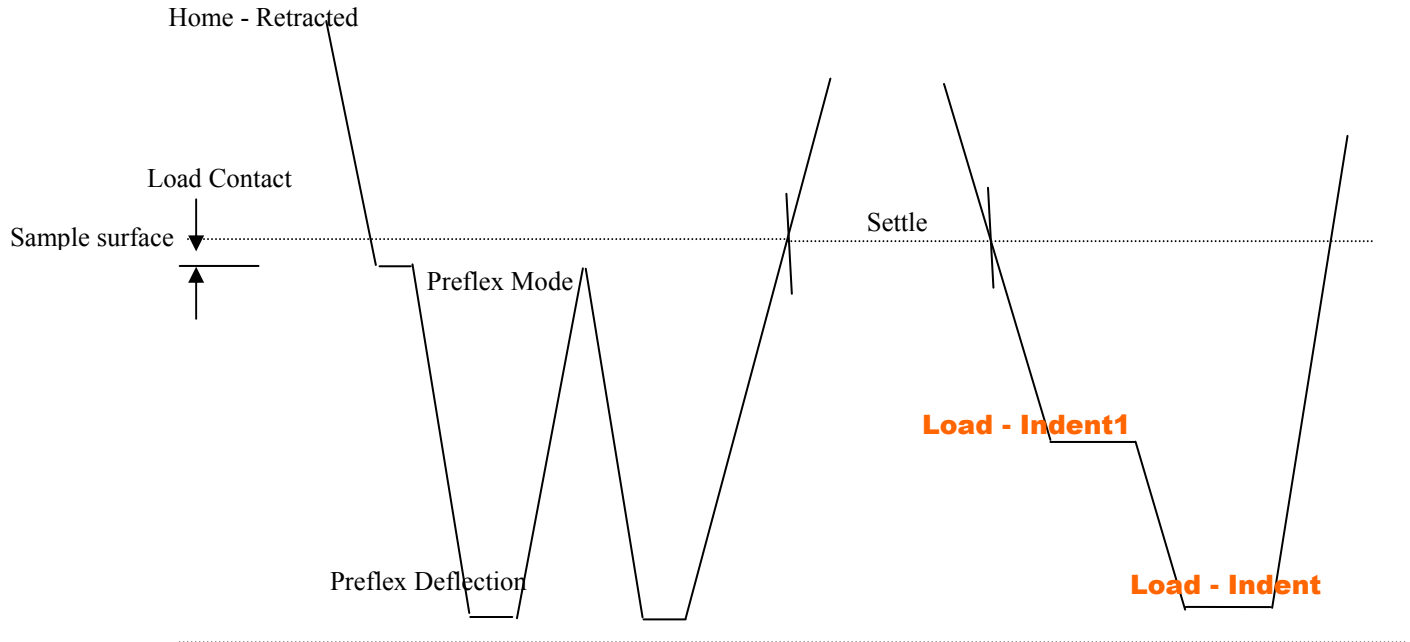


M Plus Software for IFD test

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. |