

# COMPRESSION DEFLECTION COMPARISON

## GENERAL PRINCIPLE

To assess the anti-fatigue properties of a NOTRAX® Floor Mat.

Description of the Test:

This test was designed to assess and compare performance characteristics of a variety of industrial matting submitted for testing. Two specific compression load levels were applied to the test samples and the deflection which resulted was measured.

The two compressions are: 20 PSI → 1.4kg/cm<sup>2</sup>

40 PSI → 2.8kg/cm<sup>2</sup>

It appears that, within a reasonable range, the greater the deflection the better the anti-fatigue properties of the material.

The compression load was increased to determine whether the deflection increased respectively.

## TEST RESULTS

PRODUCT IDENTIFICATION	ORIGINAL THICKNESS	THICKNESS AT 20 PSI	DEFLECTION AT 20 PSI	THICKNESS AT 40PSI	DEFLECTION AT 40 PSI
XXX	0.993 Inch	0.406 Inch	0.587 Inch	0.321 Inch	0.672 inch

*Conversions : 1 Inch = 2.54 cm and 1 Lbs = 0.45 kg*

## INTERPRETATION OF THE RESULTS

The results of the test are expressed as “Deflection at 40 P.S.I.” All results are reported in inches.

To equate the results to actual usage, the following example is helpful: A 180 lb. Man has a surface area on each shoe of 12” x 4”. At an even weight distribution of 90 lbs. per shoe, each shoe applies a compression load of only 1.88 P.S.I.

The greater the deflection (the higher the number), the greater the anti-fatigue properties of the mat.

The most meaningful interpretation is to compare the Compression Deflection test results of all NOTRAX<sup>®</sup> Floor Matting products.

All testing of NOTRAX<sup>®</sup> Floor Matting has been performed by an independent testing laboratory.