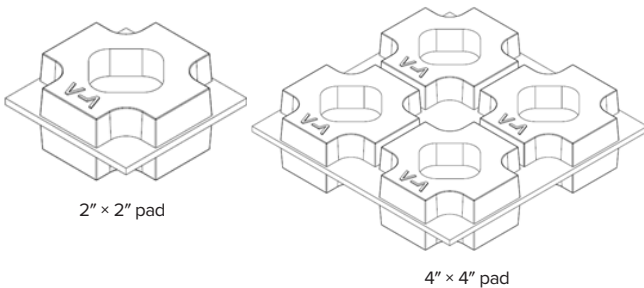


TEST DESCRIPTION/GENERAL

ASTM D575-91(2012) Method A describes the method of test and rating of compression-deflection characteristics of rubber compounds other than those classified as hard rubber and sponge rubber. According to Method A, three test specimens are compressed to a specified deflection, and the force required to cause this specified deflection is determined. Compression is applied and removed in 3 consecutive cycles. The standard specifies that each test cycle must be performed using a speed of 0.5"/minute on a conditioned specimen.

SPECIMEN DESCRIPTION

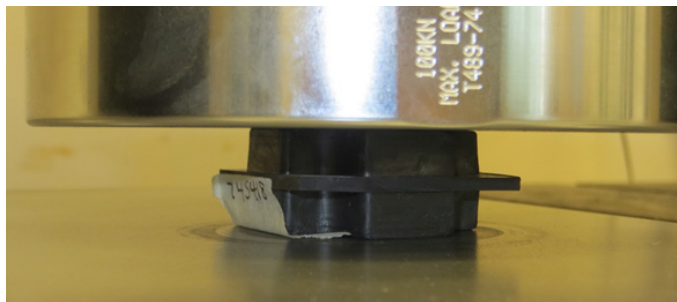
The specimens being tested are representative models of Vibro-Acoustics' Neo+ product line. The specimens are molded using a proprietary formula which is mainly composed of virgin black neoprene rubber. Samples with durometers of 40 Duro and 60 Duro are used. For each durometer, 2x2 pads and 4x4 are used. For compliance with Method A of ASTM D575-91(2012), three samples of each durometer/size combination are used for each test.



TEST EQUIPMENT AND FIXTURES

Testing was performed using a Satec 60UD electro-mechanical testing machine with a 22 kips (100 kN) capacity load cell and digital controller. An Instron Model IP3393 data acquisition system collected the test data points for post-processing in an Excel workbook. A single fixture was used for the different Neo+ configurations and durometers.

The test machine linear displacement sensors and load cell were calibrated in tension and compression by Instron Calibration Laboratory, an NVLAP-accredited and ISO 17025 agency, in accordance with ICA-8-07 and ASTM E4-14 before testing was performed.



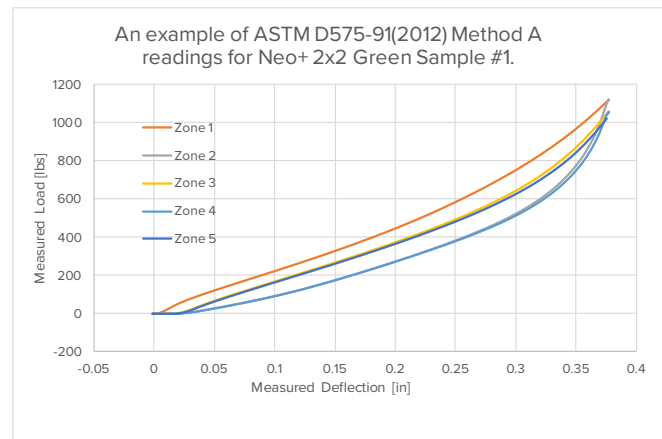
PROCEDURE

The Neo+ pads were conditioned for a minimum of 24 hours at a temperature of 23 ± 2°C and 50 ± 5% relative humidity. The specimens were then tested immediately upon removal from the conditioning chamber. The specimens were compressed by 0.375" (9.5 mm) to the target displacement (zone 1), unloaded (zone 2), compressed again to the target (zone 3), unloaded (zone 4), and compressed again to the target (zone 5). As per ASTM D575-91(2012) Method A, the results from zone 5 are used for rating and the median value of each specimen type is used to determine the tested rating.

RESULTS

The test results are summarized in the table below. These values represent the median from each test set, using measurements from Zone 5 loading as per ASTM D575-91.

	0.0975"	0.1750"	0.2188"
NP-Black 2x2	60 lbf	120 lbf	160 lbf
NP-Black 4x4	240 lbf	480 lbf	640 lbf
NP-Green 2x2	160 lbf	320 lbf	400 lbf
NP-Green 2x2	640 lbf	1280 lbf	1600 lbf



RATED CAPACITY

Test data demonstrate that load ratings between 2x2 and 4x4 sized pads of the same durometer are commensurable. Therefore, the load rating can be re-stated as a distributed load and this distributed load rating can be used for all available pad sizes. As shown in the diagram below, the 40 durometer pads are rated for 15 psi at the minimum deflection of 0.0975" (11% of pad height), 30 psi at the design deflection of 0.1750" (20% of pad height) and 40 psi at the max deflection of 0.2188" (25% of pad height). The 60 durometer pads are rated for 40 psi at the minimum deflection of 0.0975" (11% of pad height), 80 psi at the design deflection of 0.1750" (20% of pad height), and 100 psi at the max deflection of 0.2188" (25% of pad height).

