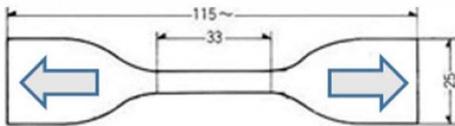




Tensile Strength, Elongation, and Modulus

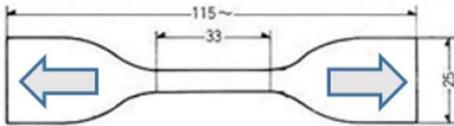
Tensile Strength (PSI) ASTM D412 Test Method A—Dumbbell and Straight Section Specimens

Tensile strength is the amount of force in pounds per square inch (psi) required to stretch a test sample to the point of failure. This test is performed placing a dumbbell shaped part into the grips of a tensiometer. The tensiometer pulls the grips apart steadily until the dumbbell breaks. The force at rupture is known as ultimate tensile strength or tensile.



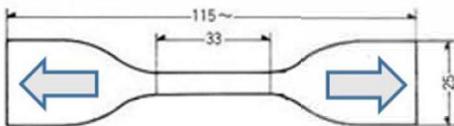
Elongation (%) ASTM D412 Test Method A—Dumbbell and Straight Section Specimens

Elongation is measured by stretching the sample same as above and measuring the change in length from original. Elongation is expressed as a percentage of the original length. Ultimate elongation is the percentage change in length from original to rupture.



Modulus ASTM D412 Test Method A—Dumbbell and Straight Section Specimens

Modulus is the force at a specific elongation, such as 100%, 200% or 300% elongation. Stated in PSI, modulus is used for comparison purposes at various%, example 100% elongation is referred to as "M100". Modulus in simple terms is the force required to stretch a material to a certain percentage.



Hanna Rubber Company

908 West 25th Street
Kansas City, MO 64108