

ASTM D2290 TESTING FIXTURE

SPLIT-DISK TENSILE



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Split disk and ring segment tensile tests, properly interpreted, provide reasonably accurate information with regard to the apparent tensile strength of plastic pipe when employed under conditions approximating those under which the tests are made.

ASTM Standard D 2290 originally included several procedures for testing ring specimens.

Procedure A is used for reinforced-thermosetting resin pipe; Procedure B is used for thermoplastic pipe of any size; Procedure C is used for thermoplastic pipe with nominal diameter of 4¹/₂ in. (110 mm) and greater. Procedure D is used for polyethylene pipe with a nominal diameter of 14 in. (350 mm) and greater and preferably having wall thickness 1 in. (25 mm) and greater.



ASTM D2290 TESTING FIXTURE - Drawing

Sources of Additional Information:

ASTM Standard D 2290-12, "Apparent Tensile Strength of Ring or Tubular Plastics and Reinforced Plastics by Split Disk Method," American Society for Testing and Materials, West Conshohocken, Pennsylvania (first issued in 1964).

C.E. Knight, Jr., "Failure Analysis of the Split-D Test Method," *Composite Materials: Testing and Design* (4th Conference), ASTM STP 617, American Society for Testing and Materials, West Conshohocken, Pennsylvania, 1977, pp. 201-214.

S.H. Yoon, W.M. Cho, and C.G. Kim, "Measurement of Modulus in Filament Wound Ring Specimen Using Split Disk Test," *Experimental Mechanics*, January/February 1997, pp. 25-28.

I.A. Jones, V. Middleton, and M.J. Owen, "Roller-Assisted Variant of the Split Disc Test for Filament-Wound Composites," *Composites, Part A*, Vol. 27A, 1996, pp. 287-294.

