

ASTM D905 TESTING FIXTURE

LAPPED BLOCK SHEAR STRENGTH OF ADHESIVE BONDS



ASTM D905 Testing Fixture - Application

This test method can be used to determine the adhesive bond shear strength between other adherends as well. The basic testing principle is similar to that of the ASTM D 4501 Block-Shear Test Method.

The standard specimen consists of two blocks, each 1.75" high and 2" wide, bonded together with a ¼" vertical stagger (a ¼" step between blocks in the vertical direction). The upper block of the specimen is placed on the bottom of the fixture and will be glued. The guillotine assembly is lowered on top of the lower block.

The large pin positioned in the upper part of the guillotine complex is a handle, in this way it will be easier to raise and lower the assembly. The loading surface of the guillotine assembly is free to rotate with respect to the rest of the group, to accommodate any non-parallelism of the upper and lower surfaces of the glued sample.

The small pin in the cutout arc, has the function of keeping the two parts of the group together.

The resistance of the adhesive to the cut is calculated as the force required to shear the two part blocks divided by the bond area between the blocks.

Additional Information

Test Standard	ASTM-D905, ASTM-D143, DIN 52187, DIN 52367, EN 392, ISO 6238, UNE 56543:88
Maximum Load	50 kN
Temperature Range	0 °C to 70 °C
Height	430 mm
Lenght	180 mm
depth	150 mm
Mass	28 kg

Referenced Documents:

ASTM Standard D 4501-01 (2001), "Standard Test Method for Shear Strength of Adhesive Bonds Between Rigid Substrates by the Block-Shear Method, American Society for Testing and Materials, West Conshohocken, Pennsylvania (first published in 1985).

