

FLOATING ROLLER PEEL FIXTURES

2820-101 and 2820-102

This fixture consists of two roller bearings in a frame that connects to the test system via a pivoting adapter. This design ensures the specimen is brought into alignment as soon as a force is applied and that the applied force goes through the centerline of the fixture. As the crosshead is driven in the tensile direction, the load cell measures the force required to peel the flexible adherend from the rigid adherend.

There are two different versions of the fixture. One complies with the ASTM D3167 and the other with ISO 4578, EN 2243-2 and EN 1464 standards. While the standards are very similar there are slight differences in the specified peel area dimensions and the roller bearings diameter. While the differences are small, they may contribute to variation in the test results.

PRINCIPLE OF OPERATION

The floating roller peel fixture, also called a roller drum peel test fixture, measures the strength of adhesive bonds between a rigid adherend and a flexible adherend. The floating roller peel fixture is an alternative to a climbing drum peel fixture. The floating roller test is generally considered to be more severe because the angle of peel is greater.

Test specimens are either prepared individually or cut from bonded panels. The flexible adherend is attached to the rigid adherend with the adhesive that is to be tested. It is critical that the rigid adherend be stiff enough so it cannot be bent or distorted during the test. The unbonded end of the flexible adherend is bent perpendicular to the rigid adherend and then clamped in the lower grip of the testing system.

FEATURES

- Precisely measures the relative peel resistance of high strength adhesive bonds between a rigid adherend and a flexible adherend
- Compliance with ASTM D3167, ISO 4578, EN 2243-2 and EN 1464 standards

APPLICATION RANGE

- Peel testing per ASTM D3167, ISO 4578, EN 2243-2, or EN 1464
- Alternative to climbing drum peel test
- Tests the bond strength of adhesives

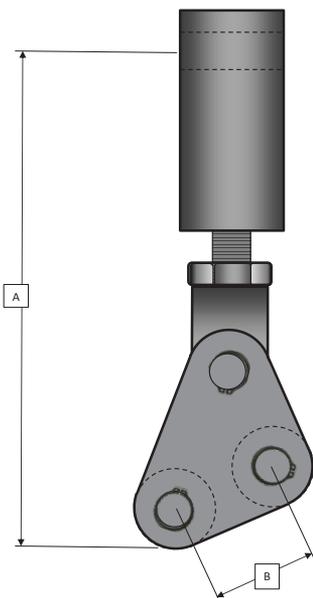


SPECIFICATIONS

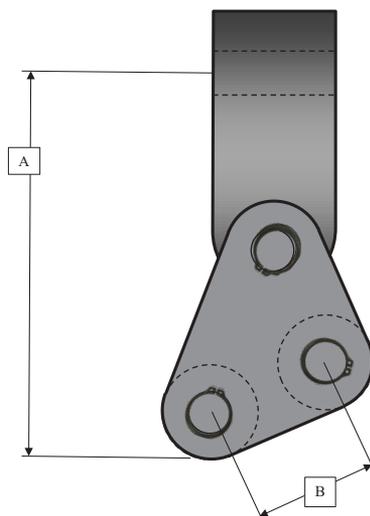
		2820-101	2820-102
Associated Standards		ASTM D3167	ISO 4578 EN 1464 EN 2243-2
Maximum Load	kN	5	5
	kgf	500	500
	lbf	1125	1125
Roller Diameter	mm	25.4	25.0
	in	1	1
Roller Width	mm	25.4	30.0
	in	1	1.2
Peeling Zone (B)	mm	30.5	33
	in	1.2	1.3
Effective Length (A)	mm	100	153
	in	3.9	6
Temperature Range	°C	-40 to +150	-40 to +150
	°F	-40 to + 300	-40 to +300
Upper Fitting		1/2 in Clevis (type Dm)	1/2 in Clevis (type Dm)
Additional Equipment Requirements		Requires appropriate lower grip (not supplied)	Requires appropriate lower grip (not supplied)

Notes:

1. EN 1464, EN 2243-2, ISO 4578 specimen width is 25 mm
2. ASTM D3167 specimen width is 0.5 in



2820-101



2820-102

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