



## Determination of adhesion strength of silicone rubber coated fiberglass cloth

### Principle

The fabric coating of the standard sample was stripped at constant speed.

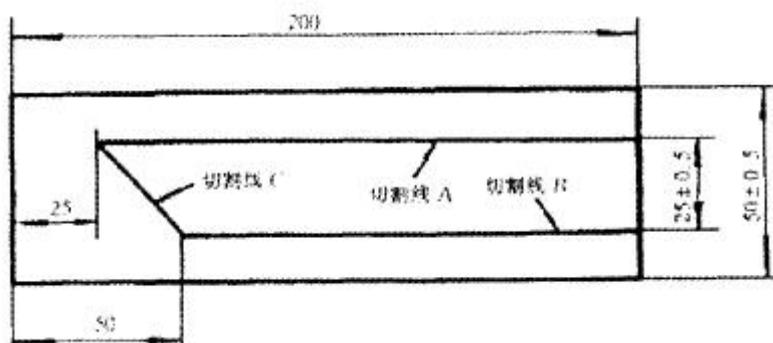
### Instrument

It is stipulated to use the The constant-rate-of-extension (CRE) testing machine. The movement speed of the testing machine fixture should be  $100 \pm 10$ mm/min. The permitted replacement speeds of 50 mm/min and 300 mm/min were agreed upon by the parties concerned. But the results of different speed measurements, can not be compared with each other.

### Specimen

The length of the specimen is 200 mm and the width is  $50 \pm 0.5$  mm. The length of the specimen shall be at least 100 mm apart from the coating layer of the silicone rubber. The specimen shall not be taken within 50 mm of the edge or within 1000 mm of the edge of the roll.

Two specimens of 50 mm and 200 mm length were taken and the surface of the coating of the test material was burnished lightly. The two test pieces were then adhesively bonded together with a suitable room temperature vulcanizate and vulcanized . Cut the silicone rubber fabric into a sample of the size shown in Pic 1.



Pic 1 Test dimension and cutting line position

The cutting line A is extended from one end of the specimen to the other end 25 mm from the edge. The cutting line B is extended from one end of the specimen to the other end 50 mm from the edge. And both ends of the cut lines A and B are connected by oblique cutting lines C. As shown in Pic.

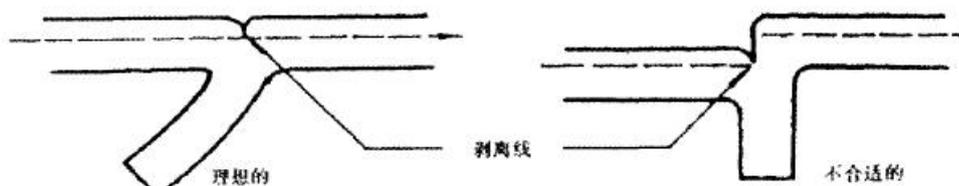




Cut A, B, C line, which should cut through a layer of fabric and two layers of coating to another layer of fabric. The knife edge was placed at the intersection formed by the cutting lines A and C from which the peel strip thus formed was peeled from the fabric by a distance of 50 mm.

#### Test procedure

The end of the stripping specimen fixed in the moved fixture, put the fabric on the fixed fixture, adjust the specimen position, so that the test when the tension are hook. During the test, the specimen shall not be twisted and the peeling angle shall be approximately  $180^\circ$ . Make sure that the center line of the specimen fixed in the fixture that is in the same plane as the stripping line of each layer, as shown in Pic 2. The force measurement system was positioned at zero and strip the layer, and record the force of peeling 100 mm length was recorded.



The results are shown

Read all the peaks in the 50% region of the stripping curve and arrange the peaks in non-descending order. The arithmetic mean of the first half of the column represents the adhesion strength of the sample. The experimental results are represented by the arithmetic mean of the adhesion strength of the two specimens in N/m.

#### Test Report

The test report shall include the following:

- The standard name or code of the test;
- The details of the silicone rubber fabric sample;
- The of the adhesion strength of samples in each direction;
- Average adhesion strength in each direction;
- Peeling speed;
- Any operational details and other factors not specified in this standard that may affect the results.

