

Transformed

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 814

PREPARATION OF TEST PIECE AND METHOD OF TEST
OF THE ADHESION OF VULCANIZED RUBBER TO METAL
WHERE THE RUBBER IS ASSEMBLED TO TWO METAL PLATES

1st EDITION

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BRIEF HISTORY

The ISO Recommendation R 814, *Preparation of test piece and method of test of the adhesion of vulcanized rubber to metal where the rubber is assembled to two metal plates*, was drawn up by Technical Committee ISO/TC 45, *Rubber*, the Secretariat of which is held by the British Standards Institution (BSI).

Work on this question by the Technical Committee led, in 1962, to the adoption of a Draft ISO Recommendation.

In November 1963, this Draft ISO Recommendation (No. 615) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Argentina	Germany	Poland
Australia	Hungary	Spain
Austria	India	Sweden
Brazil	Israel	Switzerland
Canada	Italy	United Kingdom
Chile	Japan	U.S.A.
Colombia	Korea, Rep. of	U.S.S.R.
Czechoslovakia	Netherlands	Yugoslavia
France	New Zealand	

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in September 1968, to accept it as an ISO RECOMMENDATION.

PREPARATION OF TEST PIECE AND METHOD OF TEST
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1. SCOPE

This ISO Recommendation describes a method for testing the adhesion strength of rubber-to-metal bonds where the rubber part is assembled between two parallel metal plates.

This ISO Recommendation primarily applies to test pieces prepared in the laboratory under standard conditions, such as may be used to provide data for the development and control of rubber compounds and methods of manufacture.

2. PRINCIPLE OF TEST

The test consists of measuring the force required to cause the rupture of a unit of standard dimensions, comprising rubber bonded to two parallel metal plates, the direction of the force being at 90° to the bonding surface.

3. APPARATUS

- 3.1 *Testing machine.* A tensile testing machine conforming to the requirements of national standards for verification of testing machines should be used. It should be capable of accurately registering the maximum force in newtons obtained during the test, and of maintaining the specified constant rate of separation of the jaws of 25 ± 5 mm per minute.

NOTE. — Inertia (pendulum) type dynamometers are apt to give results which differ because of frictional and inertial effects. An inertia-less (for example, electronic or optical transducer) type dynamometer gives results which are free from these effects and is therefore to be preferred.

- 3.2 *Fixtures.* The fixtures for holding the test pieces in the testing machine should permit accurate centering of the applied load during the test.

A suitable type of fixture is shown in Figure 1.