

Transformed

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

**ISO RECOMMENDATION
R 698**

FILLER RODS FOR BRAZE WELDING

**METHODS OF TEST FOR DETERMINING
THE CONVENTIONAL BOND STRENGTH
ON STEEL, CAST IRON AND OTHER METALS**

1st EDITION

March 1968

COPYRIGHT RESERVED

The copyright of ISO Recommendations and ISO Standards belongs to ISO Member Bodies. Reproduction of these documents, in any country, may be authorized therefore only by the national standards organization of that country, being a member of ISO.

For each individual country the only valid standard is the national standard of that country.

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 698 *Filler rods for braze welding — Methods of test for determining the conventional bond strength on steel, cast iron and other metals*, was drawn up by Technical Committee ISO/TC 44, *Welding*, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this question by the Technical Committee began in 1957 and led, in 1961, to the adoption of a Draft ISO Recommendation.

In October 1965, this Draft ISO Recommendation (No. 845) 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 :

Australia	Ireland	Spain
Austria	Israel	Sweden
Brazil	Italy	Switzerland
Canada	Japan	U.A.R.
Chile	Netherlands	United Kingdom
Denmark	New Zealand	U.S.S.R.
France	Portugal	Yugoslavia
India	Romania	

Four Member Bodies opposed the approval of the Draft :

Belgium
Germany
South Africa, Rep. of
U.S.A.

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

FILLER RODS FOR BRAZE WELDING

METHODS OF TEST FOR DETERMINING THE CONVENTIONAL BOND STRENGTH ON STEEL, CAST IRON AND OTHER METALS

FOREWORD

This ISO Recommendation is a companion to ISO Recommendation R 688, *Filler rods for braze welding – Methods of test for determining the characteristics of the deposited metal*.

1. SCOPE

This ISO Recommendation describes tests for filler rods for braze welding to determine the conventional bond strength on

- steel
- cast iron
- other metals and alloys.

The conventional bond strength of a braze welding filler metal on a parent metal is determined by means of a tensile test in which the stress is applied to the normal cross-sectional area of the test piece.

2. DETERMINATION OF CONVENTIONAL BOND STRENGTH ON STEEL

2.1 Assembly

2.1.1 *Type of assembly and choice of parent metal*

2.1.1.1 In order to determine the conventional bond strength of braze welding filler metals on steel, a single Vee butt joint assembly without a gap, as shown in Figure 1, should be braze welded.

2.1.1.2 The plates should be of mild steel. The faces of the bevel, which should be smooth, as well as the immediately surrounding areas (over a width of 10 to 15 mm) should be cleaned of oxide and other surface contamination and degreased before assembly.

2.1.2 *Operating conditions*

2.1.2.1 The thickness of the plates and the operating conditions should be chosen as follows, depending on the diameter of the filler rod : *

* Care should be taken to ensure a level joint assembly.