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# INTERNATIONAL STANDARD



# 544

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Electrodes for manual arc welding and filler metals for gas welding — Diameters and tolerances

*Électrodes pour soudage manuel à l'arc et métaux d'apport pour soudage aux gaz — Diamètres et tolérances*

First edition — 1975-06-01

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**Descriptors :** welding, arc welding, manual metal arc welding, gas welding, filler metal, welding electrodes, welding rods, dimensions, diameters, dimensional tolerances.

Price based on 1 page

## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 44 has reviewed ISO Recommendation R 544 and found it technically suitable for transformation. International Standard ISO 544 therefore replaces ISO Recommendation R 544-1967 to which it is technically identical.

ISO Recommendation R 544 was approved by the Member Bodies of the following countries :

Australia	India	Romania
Belgium	Israel	Spain
Bulgaria	Italy	Sweden
Czechoslovakia	Japan	Switzerland
Denmark	New Zealand	United Kingdom
Finland	Norway	U.S.S.R.
France	Poland	Yugoslavia
Greece	Portugal	

The Member Bodies of the following countries expressed disapproval of the Recommendation on technical grounds :

Netherlands\*  
South Africa, Rep. of

No Member Body disapproved the transformation of ISO/R 544 into an International Standard.

\* Subsequently, this Member Body approved the Recommendation.

# Electrodes for manual arc welding and filler metals for gas welding — Diameters and tolerances

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard lays down the diameters and tolerances of electrodes used for manual arc welding and filler metals used for gas welding.

## 2 DIAMETERS

The diameters of electrodes for manual arc welding and filler metals for gas welding shall have the following values, expressed in millimetres, taken from the R 10 series of preferred numbers :

1 — 1,25 — 1,6 — 2 — 2,5 — 3,15 — 4 — 5 — 6,3 — 8 — 10 — 12,5

## 3 TOLERANCES

The tolerances on the diameter of electrodes for manual arc welding and filler metals for gas welding shall have the following values :

### 3.1 Electrodes for manual arc welding

± 3 % of the diameter, with a maximum of ± 0,1 mm.

### 3.2 Filler metals for gas welding

± 3 % of the diameter.