

AS/NZS ISO 14175:2022
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Australian/New Zealand Standard™

Welding consumables — Gases and gas mixtures for fusion welding and allied processes



AS/NZS ISO 14175:2022

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- Australian Chamber of Commerce and Industry
- Bureau of Steel Manufacturers of Australia
- New Zealand Heavy Engineering Research Association
- Rail Industry Safety and Standards Board
- University of Auckland (New Zealand)
- Weld Australia

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee WD-002, Welding Consumables.

The objective of this document is to specify requirements for the classification of gases and gas mixtures used in fusion welding and allied processes including, but not limited to —

- (a) tungsten arc welding (Process 141);
- (b) gas-shielded metal arc welding (Process 13);
- (c) plasma arc welding (Process 15);
- (d) plasma arc cutting (Process 83);
- (e) laser welding (Process 52);
- (f) laser cutting (Process 84); and
- (g) arc braze welding (Process 972).

Process numbers are in accordance with ISO 4063.

This document aims to classify and designate shielding, backing, process and assist gases in accordance with their chemical properties and metallurgical behaviour as the basis for correct selection by the user and to simplify the possible qualification procedures.

Gas purities and mixing tolerances are specified as delivered by the supplier (manufacturer) and not at the point of use.

Gases or gas mixtures may be supplied in either liquid or gaseous form, but when used for welding and allied processes, the gases are always used in the gaseous form.

Fuel gases, such as acetylene, natural gas, propane, etc., and resonator gases, as used in gas lasers, are not covered by this document.

Local, national and regional standards and regulations may set out requirements for the transportation and handling of gases and containers.

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Foreword

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ISO 14175 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 3, *Welding consumables*.

This second edition cancels and replaces the first edition (ISO 14175:1997) which has been technically revised.

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