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Supersedes
DIN 8505-1:1979-05,
DIN 8505-2:1979-05 and
DIN 8505-3:1983-01

Welding and allied processes –**Vocabulary –****Part 2: Soldering and brazing processes and related terms****(ISO 857-2:2005)****English version of DIN ISO 857-2:2007-03**

Schweißen und verwandte Prozesse –

Begriffe –

Teil 2: Weichlöten, Hartlöten und verwandte Begriffe (ISO 857-2:2005)

Englische Fassung DIN ISO 857-2:2007-03

Document comprises 32 pages



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National foreword

This standard has been prepared by Technical Committee ISO/TC 44 “Welding and allied processes”, Subcommittee SC 7 “Representation and terms”.

The responsible German body involved in its preparation was the *Normenausschuss Schweißtechnik* (Welding Standards Committee), Joint Committees NA 092-00-06 AA *Darstellung und Begriffe der Schweißtechnik* (DVS AG I 4) and NA 092-00-08 AA *Löten* (DVS AG V 6).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. DIN shall not be held responsible for identifying any or all such patent rights.

The International Standard referred to in clause 2 has been published as DIN EN ISO Standard.

DIN ISO 857 consists of the following parts, under the general title *Welding and allied processes — Vocabulary*:

- *Part 1: Metal welding processes*
- *Part 2: Soldering and brazing processes and related terms*

In view of current discussions centring around joints from differing metals, it has been recognized there is a need to consider the actual joints produced instead of the processes that are used to make the joints. This will be the subject of upcoming standardization work and will be incorporated in a subsequent edition of this standard once specified at national and CEN level.

Amendments

This standard differs from DIN 8505-1:1979-05, DIN 8505-2:1979-05 and DIN 8505-3:1983-01 as follows:

- a) The contents of the standards have been combined into one standard.
- b) Clause 3 “Terms and definitions” has been revised and extended.

- c) For the processes described in Annex A, the reference numbering used in DIN EN ISO 4063 has been adopted.

Previous editions

DIN 8505-1: 1979-05

DIN 8505-2: 1979-05

DIN 8505-3: 1983-01

DIN 8505: 1960-11, 1965-04, 1969-04

National Annex NA
(informative)

Bibliography

DIN EN ISO 4063, *Welding and allied processes — Nomenclature of processes and reference numbers (ISO 4063:1998)*

Welding and allied processes — Vocabulary — Part 2: Soldering and brazing processes and related terms

Introduction

ISO 857:1990 has been revised in two new parts, ISO 857-1, *Welding and allied processes — Vocabulary — Part 1: Metal welding processes*, and ISO 857-2, *Welding and allied processes — Vocabulary — Part 2: Soldering and brazing processes and related terms*.

ISO 857-1 is restricted to welding processes for metallic materials and the welding processes are structured in a more systematic way than in ISO 857:1990. The processes have been classified according to their physical characteristics, e.g. pressure or fusion welding, and the type of energy source. A number of new processes have been added and a number of obsolete processes have been removed.

ISO 857-2 is restricted to soldering and brazing processes and is organized in the same manner as ISO 857-1. New definitions have been added in order to provide a better understanding of such processes.

The numbers in parentheses following the name of the process refer to the numbering used in ISO 4063. Most of the definitions are accompanied by schematic figures given as examples.

Requests for official interpretations of any aspect of this part of ISO 857 should be directed to the Secretariat of ISO/TC 44/SC 7 via your national standards body. A complete listing of these bodies can be found at www.iso.org.

1 Scope

This part of ISO 857 defines terms used for metal soldering and brazing processes, as well as related terms.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4063, *Welding and allied processes — Nomenclature of processes and reference numbers*

3 Terms and definitions

3.1

soldering/brazing

joining processes in which a molten filler material is used that has a lower liquidus temperature than the solidus temperature of the parent material(s), which wets the surfaces of the heated parent material(s) and which, during or after heating, is drawn into (or, if pre-placed, is retained in) the narrow gap between the components being joined

NOTE 1 These processes are generally carried out with metals but they can also be carried out with non-metallic materials. The filler material always has a different chemical composition from the components being joined.

NOTE 2 If the process is carried out without capillary attraction, it is often described as braze welding.

3.1.1

soldering

joining process using filler metal with a liquidus temperature of 450 °C or less

3.1.2

brazing

joining process using filler metal with a liquidus temperature above 450 °C

3.1.3

coating

deposition of a layer or layers of material on a surface to obtain desired properties and/or dimensions

3.1.4

filler metal spreading and gap filling

3.1.4.1

wetting

spreading and adhesion of a thin continuous layer of molten filler metal on the surfaces of the components being joined