

Method for specifying

Phosphate conversion coatings for metals

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Surface Coatings (other than Paints) Standards Policy Committee (SRC/-) to Technical Committee SRC/38, upon which the following bodies were represented:

- Aluminium Federation
- British Metal Finishing Suppliers' Association
- EEA (the Association of Electronics, Telecommunications and Business Equipment Industries)
- Institute of Corrosion
- Institute of Metal Finishing
- Magnesium Industry Council
- Metal Finishing Association
- Paintmakers Association of Great Britain Ltd.
- Society of Motor Manufacturers and Traders Limited

This British Standard, having been prepared under the direction of the Surface Coatings (other than Paints) Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 28 June 1991

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Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
1 Scope	1
2 Normative references	1
3 Information to be supplied by the purchaser to the coater	1
4 Coating classification code	1
5 Sampling	2
6 Treatment of basis metals before coating	2
7 Phosphate conversion coating	2
8 Heat treatment after coating	2
9 After treatment	2
Annex A Guidance information	3
Annex B Recommendations for phosphate conversion coatings to provide corrosion protection	4
Annex C Recommendations for phosphate conversion coatings to ensure good adhesion of paints, varnishes and related coatings and to improve corrosion resistance	5
Annex D Recommendations for phosphate conversion coatings to facilitate cold forming	6
Annex E Recommendations for phosphate conversion coatings to facilitate sliding action	6
Annex F Guidance on heat treatment of steel	6
Annex G Appearance of types of phosphate conversion coatings	7
Annex H Determination of corrosion resistance	8
Annex J Identification of phosphate conversion coatings	9
Table 1 — Summary of principal types of phosphate conversion coatings	1
Table A.1 — Characteristics of phosphate conversion coatings	4
Table B.1 — Recommendations for phosphate conversion coatings and after-treatment to provide corrosion protection	5
Table C.1 — Recommendations for phosphate conversion coatings to ensure good adhesion of painted and related coatings and to improve corrosion resistance	5
Table D.1 — Recommended zinc phosphate conversion coating mass per unit area to facilitate cold forming	6
Table E.1 — Recommended manganese phosphate conversion coating mass per unit area to facilitate sliding action	6
Table F.1 — Hydrogen embrittlement relief after phosphating	7
Table G.1 — Usual appearance of phosphate conversion coatings	8
Table H.1 — Minimum permissible exposure time (in hours) before first corrosion for non-after-treated, phosphated ferrous components	8
Table J.1 — Identification of phosphate conversion coating type	9
Publication(s) referred to	Inside back cover

National foreword

This British Standard has been prepared under the direction of the Surface Coatings (other than Paints) Standards Policy Committee. It is identical with ISO 9717:1990, “Phosphate conversion coatings for metals — Method of specifying requirements”, prepared by Subcommittee 8, Conversion coatings, of Technical Committee 107, Metallic and other inorganic coatings, of the International Organization for Standardization (ISO), with the active participation and approval of the UK.

As this standard is based on requirements to be agreed between the interested parties it is no longer appropriate for any claim to be made that a coating complies with this British Standard.

As stated above, this revision of BS 3189 differs from the 1973 edition in that it has been written in the form of a method for specifying, rather than a specification. The standard has also been extended to cover not only phosphate coatings on ferrous metals but also on aluminium, zinc, cadmium and their alloys. However, this revision does not include appendices containing methods of test as these are now published separately as Parts of BS 5411 and BS 5466. With the publication of this revision, BS 3189:1973 is withdrawn.

Additional information

Phosphate conversion coatings are applied to ferrous metals, aluminium, zinc, including zinc plated steel, cadmium and their alloys, either as an end finish or as an intermediate layer for other coatings.

They are intended to:

- a) impart corrosion resistance;
- b) improve adhesion to paints and other organic finishes;
- c) facilitate cold forming operations such as wire drawing, tube drawing and extrusion;
- d) modify surface frictional properties so as to facilitate sliding.

A general description of the principal processes is given for guidance in annex A. Recommendations for coating and after-treatment for each end use are given in annex B, annex C, annex D and annex E.

Cross-references

International standard	Corresponding British Standard
ISO 3768:1976	BS 5466 Methods for corrosion testing of metallic coatings Part 1:1977 Neutral salt spray test (NSS test) (Identical)
ISO 3892:1980	BS 5411 Methods of test for metallic and related coatings Part 14:1982 Gravimetric method for determination of coating mass per unit area of conversion coatings on metallic materials (Identical)
ISO 4519:1980	BS 6041:1981 Method of sampling of electrodeposited metallic coatings and related finishes: procedures for inspection by attributes (Identical)

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 10, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

