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Steel wire and wire products – Organic coatings on steel wire – Part 1: General rules

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Tråd och trådprodukter av stål – Tråd med organisk beläggning – Del 1: Allmänna bestämmelser

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Beschichtungen auf Draht - Teil 1: Allgemeine Regeln

This European Standard was approved by CEN on 21 January 2001.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

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Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 30 "Steel wires", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2001, and conflicting national standards shall be withdrawn at the latest by September 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This European Standard for organic coatings for steel wire is a number of parts; Part 1 covering the requirements of a general nature and applying also to coatings for which no specific requirements have been established in the subsequent parts of this standard.

The subsequent parts of this standard deal more specifically with clearly defined coatings or groups of coatings. These coatings may have their own particular methods of application and their individual requirements which are specified in these parts of this standard, in other standards or in manufacturers data sheets.

This standard is made up of the following parts:

Part 1 : General Rules

Part 2 : PVC coated wire

Part 3 : PE coated wire

Part 4: Polyester coated wire

In writing this series of standards consideration has been given to the nomenclature and transformation of organic coating materials as applied to steel wire products. These organic coating materials may on application to wire and by their integration into the finished wire product change their characteristics and properties.

This standard specifies characteristics and tests not only for the organic coating but also for the coating materials both before and after their application to steel wire and wire products. In addition it specifies the requirements for performance levels and testing methods on organic coating material which have become an integral and permanent part of the finished wire product. Therefore it has proven not to be practical to put all requirements in one clause and all the tests in another one.

To aid continuity and in order to limit complexity following structure has been chosen for this standard.

Clause 4 Deals with the characteristics and testing methods of organic coating material as supplied by the manufacturer for the purposes of its application to the wire product.

Tests described in this section are intended to be carried out by the organic coating material manufacturer or the applicator **before** the coating operation.

Clause 5 relates to the characteristics and testing methods for the "organic coating" when the organic coating material has been applied to and has become an integral part of the finished wire. Consequently tests are intended to be in the main carried out by the coating "applicators".

Clause 6 defines the performance requirements and testing methods on the "organic coating" of the finished wire product, and where this is not possible, tests will be carried out on "coated" panels.

1 Scope

This part of EN 10245 specifies the requirements for the characteristics and testing methods for organic coatings made of organic coating material suitable for the application on to steel wire and wire products of circular or other sections.

Other organic materials which are applied intentionally or otherwise such as oils, greases, waxes and temporary finishes which do not become integral or a permanent part of the finished wire product are excluded from this standard

This standard EN 10245 is in a number of parts, Part 1 covering the requirements of a general nature and applies to organic coatings and coating material for which no specific requirements have been established in the subsequent parts of EN 10245.

2 Normative references

This European Standard incorporates by dated and undated reference, provisions from other publications. The normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 10021, *General technical delivery requirements for steel and iron products*

EN 10204, *Metallic materials - Inspection documents*

EN 10218-1, *Steel wire and wire products — General — Part 1: Test methods*

EN 10218-2, *Steel wire and wire products — General — Part 2: Wire dimensions and tolerances*

ISO 527-2, *Plastics — Determination of tensile test — Part 2: Test conditions for moulding and extrusion plastics*

ISO 527-3, *Plastics — Determination of tensile test — Part 3: Test conditions for films and sheets*

ISO 868, *Plastics and ebonite — Determination of indentation hardness by means of a durometer (shore hardness)*

ISO 1183, *Plastics — Methods of determining the density and relative density of non cellular plastics*

ISO 1512, *Paints and varnishes — Sampling of products in liquid or paste form*

ISO 2808, *Paints and varnishes — Determination of film thickness*

ISO 2809, *Paints and Varnishes — Determination of light fastness of paints for interior use*

ISO 2811, *Paints and varnishes — Determination of density*

ISO 2813, *Paints and varnishes — Determination of specular gloss of non mettalic paint films at 20°, 60° and 85°*