BS EN 927-1:2013

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Paints and varnishes — Coating materials and coating systems for exterior wood

Part 1: Classification and selection

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National foreword

This British Standard is the UK implementation of EN 927-1:2013. It supersedes BS EN 927-1:1997 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee STI/28, Paint systems for non-metallic substrates.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Beschichtungsstoffe - Beschichtungsstoffe und Beschichtungssysteme für Holz im Außenbereich - Teil 1: Einteilung und Auswahl

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Foreword

This document (EN 927-1:2013) has been prepared by Technical Committee CEN/TC 139 “Paints and varnishes”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by August 2013, and conflicting national standards shall be withdrawn at the latest by August 2013.

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

This document supersedes EN 927-1:1996.

EN 927 consists of the following parts under the general title *"Paints and varnishes — Coating materials and coating systems for exterior wood":*

— *Part 1: Classification and selection* (the present document);

— *Part 2: Performance specification;*

— *Part 3: Natural weathering test;*

— *Part 5: Assessment of the liquid water permeability;*

— *Part 6: Exposure of wood coatings to artificial weathering using fluorescent UV lamps and water.*

The main technical changes are:

a) the definition "build" was split up into "measured build", "theoretical build" and "subjective build";

b) the classification of build was extended to "very high";

c) the classification by exposure conditions was revised;

d) the exposure conditions in Annex A were revised;

e) the example for a manufacturer's product information was revised.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

The names used today to describe coating materials and coating systems pay little regard to technical, functional and end use categories. This makes it difficult to devise an unequivocal simple terminology applicable to all product types. This part of EN 927 attempts to address this problem by separately defining categories of appearance and end use, but with no assumptions as to whether or not a given product, by its appearance alone, will be suitable for a particular use. The objective is to avoid misuse of coating systems by the misunderstanding or over-statement of performance claims. Current experience of characteristic coating behaviour is explained in Annex A so that users can be forewarned of situations requiring specific assurances.

The treatment of exterior wood surfaces has aesthetic and protective functions. The result of such treatments can include the following:

— protection against aesthetic deterioration;

— protection against deterioration due to weathering influences;

— moderation of dimensional change;

— protection against blue stain attack;

— maintaining the function of wood components (including the possibility of renovation).

This part of EN 927 identifies criteria that need to be considered when assessing the suitability of a coating system for a particular end use and provides a framework for communicating this information between manufacturer and user. This should assist in the removal of technical barriers to trade. It is the responsibility of the manufacturer of a coating system to designate the appropriate categories for end use and appearance.

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1 Scope

This European Standard specifies a system for the classification of coating systems and coating materials for exterior wood surfaces by categories of end use, appearance and exposure conditions. It also defines several components of a multi coat system (primer, undercoat, top coat, etc.).

It is applicable to all coating materials and coating systems intended for decoration and protection of exterior wood surfaces including those which contain biologically protective ingredients for the protection of coatings and at their surface (film preservation). The coating materials may include biologically active ingredients for the protection of the liquid coating material, for example during storage (in-can preservation) or to protect their interface with the wood (e.g. blue stain protection).

This European Standard is generally not applicable to wood preservatives. Wood preservatives may however be part of a coating system covered by this standard.

Guidance on selection criteria and the procedures for user's selection are given for information in Annex A.

2 Normative references

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

EN ISO 2808:2007, *Paints and varnishes — Determination of film thickness (ISO 2808:2007)*

EN ISO 2813, *Paints and varnishes — Determination of specular gloss of non-metallic paint films at 20°, 60° and 85° (ISO 2813, including Technical Corrigendum 1)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
ageing
irreversible changes in the properties of a film which occur with the passage of time

[SOURCE: EN ISO 4618:2006, 2.9]

3.2
blocking
unwanted adhesion between two surfaces, at least one of which has been coated, when they are left in contact under load after a given drying period

[SOURCE: EN ISO 4618:2006, 2.29]

3.3
blue stain in service
surface staining of timber in service by fungi causing blue to black discoloration, often leading to disruption of surface finishes

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