ICS 87.040 PREDBEŽNÁ SLOVENSKÁ TECHNICKÁ NORMA August 2023

STN P	**Náterové látky** **Náterové látky a náterové systémy na drevo používané vo vonkajšom prostredí** **Časť 12: Priepustnosť ultrafialového a viditeľného žiarenia**	**STN P** **CEN/TS 927-12** 67 2010

Paints and varnishes - Coating materials and coating systems for exterior wood - Part 12: Ultraviolet and visible radiation transmittance

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/23

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English Version

Paints and varnishes - Coating materials and coating systems for exterior wood - Part 12: Ultraviolet and visible radiation transmittance

Peintures et vernis - Produits de peinture et systèmes de peinture pour le bois extérieur - Partie 12: Transmission du rayonnement ultraviolet et visible

Beschichtungsstoffe - Beschichtungsstoffe und Beschichtungssysteme für Holz im Außenbereich - Teil 12: Durchlässigkeit für ultraviolette und sichtbare Strahlung

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (CEN/TS 927-12:2023) has been prepared by Technical Committee CEN/TC 139 “Paints and varnishes — Coating materials and coating systems for exterior wood — Ultraviolet and visible radiation transmittance”, the secretariat of which is held by DIN.

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Introduction

Wood is a natural material that must be protected against solar radiation, heat, rain, and microorganisms to maintain its appearance and mechanical integrity when used outdoors. Wood and its components (especially lignin) are sensitive to photo oxidation and must therefore be protected by suitable coatings, particularly against ultraviolet (UV) and visible (VIS) radiation in the violet and blue region.

Clear and transparent coating films may be modified by fine sized transparent (mostly yellow or red ferrous oxide-based) pigments and more or less colourless, organic and inorganic UV-absorbers to reduce the harmful part of solar radiation. As these additives are not visible, there is a demand for a test method to determine their efficiency.

The transmittance in a specific wavelength range allows to evaluate the UV and VIS radiation protection of a coating film.

1 Scope

This document describes a test method to measure the ultraviolet (UV) and visible (VIS) spectral transmittance in the wavelength range from 280 nm to 700 nm of coatings for exterior wood. From the spectral transmittance the transmittance of UV, VIS and the combined UV and VIS wavelength range can be calculated.

It is applicable to free coatings films or coatings applied on a UV-transparent substrate.

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, *Paints and varnishes - Determination of film thickness (ISO 2808)*

EN ISO 4618, *Paints and varnishes - Terms and definitions (ISO 4618)*