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Buildings and civil engineering works — Sealants — Paintability and paint compatibility of sealants

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National foreword

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 59, *Buildings and civil engineering works*, Subcommittee SC 8, *Sealants*.

Introduction

There are current International Standards to classify sealants for façade, glazing and pedestrian walkways. These International Standards refer to a number of established test methods relating to the performance of the sealants, but until now, no methodology has been developed to evaluate claims regarding paintability and paint compatibility of sealants.

This is a complex subject and generally, although the expert opinion is that ideally it is not recommended that sealants are overpainted, it is recognized internationally that manufacturers are marketing sealants that are actively promoted as being "paintable" in marketing and sales literature and that for many refurbishment projects, sealants will be overpainted or overcoated rather than be removed and fresh sealant reapplied. It is therefore important to review the current state-of-the-art methods and characteristics relating to overpainting sealants, ultimately to at least standardize the test methods used when manufacturers make claims relating to this characteristic in future. This document can then be used in the development of future international standards relating to paintability of sealants, if required.

This document considers ways of defining sealant and coating performance and aesthetics in order to be able to suggest the aspects that are relevant when referring to a sealant as "overpaintable". There is also guidance over the form that reporting of the results should take.

The intention is that, if required, this document can be followed with the publication of a set of standard test methods leading to the possible drafting of a technical specification if necessary.

TECHNICAL REPORT **ISO/TR 20436:2017(E)**

Buildings and civil engineering works — Sealants — Paintability and paint compatibility of sealants

1 Scope

This document reviews and evaluates the methodology that can be employed to assess the paintability of or paint compatibility with sealants used in building and construction. The term “paintability” is used throughout this document and is a generic term to refer to the application of paint or a coating to a sealant.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 6927, *Buildings and civil engineering works — Sealants — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6927 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

4 Evaluation of paintability of a sealant

A number of characteristics can be part of an evaluation to determine the overall compatibility of any sealant with a specified paint or coating applied to the sealant.

Any claims of paintability will only relate to a combination of a specific paint and a specific sealant when tested together, as the coatings themselves may be subject to frequent changes in formulation. Also, the sealants may be subject to reformulation, thus necessitating regular rechecks regarding continued paintability performance. Generic claims regarding paintability are unlikely to be substantiated unless it can be guaranteed that no formulation changes have occurred since the initial evaluation.

The performance is usually evaluated as a broad assessment of overpaintability, focusing on certain aspects; see Figure 1.