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Preparation of steel substrates before application of paints and related products — Test methods for non-metallic blast-cleaning abrasives —

Part 8: Field determination of water-soluble chlorides

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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).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 12, *Preparation of steel substrates before application of paints and related products*.

A list of all parts in the ISO 11127 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html

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Introduction

The use of non-metallic abrasive blast media is common practice for dry and wet surface cleaning and blasting for substrate preparation prior to coating application. The non-metallic abrasive media are taken from their natural environment which may contain various soluble salt contaminants including chloride salts. High chloride salt concentrations in the abrasive blast media may provide for transfer of the chloride ions to the substrate during the blasting process which would then cause premature failure of the applied coating.

To limit the risk of contaminating the steel surface from contaminants in the abrasive media, the chloride levels are quantified with ion specific testing methods that are referenced in this document. This document provides guidance on analysing specifically for the chloride ion in the presence of other less / non-corrosive salts such as nitrates and carbonates.

This document is a part of the ISO 11127 series that deals with the sampling and testing of non-metallic abrasives for blast-cleaning.

The types of non-metallic abrasive and requirements on each are contained in ISO 11126.

The ISO 11126 and ISO 11127 series have been drafted as a coherent set of documents on non-metallic blast-cleaning abrasives. Information on all parts of both series is given in Annex A.

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Preparation of steel substrates before application of paints and related products — Test methods for non-metallic blast-cleaning abrasives —

Part 8:
Field determination of water-soluble chlorides

1 Scope

This document specifies a field method for the determination of water-soluble chlorides in non-metallic blast-cleaning abrasives. This field method is provided as a kit with all components and premeasured extraction solution.

This document differs from ISO 11127-7 in that equal volumes of the sample of abrasive and extraction solution are used for the determination of chloride level in the abrasive. In comparison, ISO 11127-7 uses a weight to volume ratio of abrasive to solvent (deionized water) to extract soluble salts from the abrasive. It is intended for use in the field as compared to ISO 11127-7, which is well suited for use in the laboratory.

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 8502-5, *Preparation of steel substrates before application of paints and related products — Tests for the assessment of surface cleanliness — Part 5: Measurement of chloride on steel surfaces prepared for painting (ion detection tube method)*

ISO 11127-1, *Preparation of steel substrates before application of paints and related products — Test methods for non-metallic blast-cleaning abrasives — Part 1: Sampling*

3 Terms and definitions

No terms and definitions are listed in this document.

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

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

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

4 Reagent

Acidic solvent, (pH 3,6 ± 0,2), non-buffered, which is premeasured and provided in the field kit; is biodegradable for convenience of disposal.

The weak acid utilized for extraction of the chloride ions from the media is selected from carboxylic acids such as glycolic, acetic and citric acids.

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