Metallkatted. Tioatsetamiidkorrosioonikatse (TTA-katse)

Metallic coatings - Thioacetamide corrosion test (TTA test)

EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 4538:1999 sisaldab Euroopa standardi EN ISO 4538:1995 ingliskeelset teksti. Käesolev dokument on jõustatud 12.12.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 4538:1999 consists of the English text of the European standard EN ISO 4538:1995. This document is endorsed on 12.12.1999 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: Standard määrab kindlaks vahendid ja protseduuri metallpindade vastupidavuse hindamiseks korrosioonile ja tuhmumisele selliste keskkondade korral, kus leidub lenduvaid sulfiide, tehes seda kooskõlas katete või tootespetsifikaatidega.	**Scope:**

ICS 25.220.40

Võtmesõnad: korrosioonikatsed, metallkatted

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NORME EUROPÉENNE
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EN ISO 4538

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Descriptors: Coatings, metal coatings, corrosion test, TAA test.

English version

Metallic coatings

Thioacetamide corrosion test (TAA test)
(ISO 4538:1978)

Revêtements métalliques; essai de corrosion à la thioacétamide (Essai TAA)
(ISO 4538:1978)

Metallische Überzüge; Thioacetamid-Korrosionsprüfung (TAA-Versuch)
(ISO 4538:1978)

This European Standard was approved by CEN on 1994-10-03 and is identical to the ISO Standard as referred to.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 4538:1978 Metallic coatings; thioacetamide corrosion test (TAA test)

which was prepared by ISO/TC 107 'Metallic and other inorganic coatings' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 262 'Protection of metallic materials against corrosion' as a European Standard.

This document was submitted for Formal Vote and adopted as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by July 1995 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of the International Standard ISO 4538:1978 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

0 INTRODUCTION

The type and number of test specimens, the exposure period required and the criteria of failure are not specified in this International Standard. Such details should be given in the appropriate coating or product specification.

1 SCOPE AND FIELD OF APPLICATION

1.1 This International Standard specifies the apparatus and the procedure for assessment of the resistance of metal surfaces to corrosion and tarnish in atmospheres containing volatile sulphides, carried out in accordance with coating or product specifications.

1.2 The method is applicable to the assessment of the efficacy of tarnish-preventing treatments applied to silver or copper and to the detection of discontinuities in precious metal coatings on these metals.

2 REFERENCE

ISO 1462, *Metallic coatings — Coatings other than those anodic to the basis metal — Accelerated corrosion tests — Method for evaluation of the results.*

3 PRINCIPLE

Exposure of test specimens to vapours emitted by thioacetamide in an atmosphere having a relative humidity of 75 %, maintained by the presence of a saturated solution of sodium acetate.

4 REAGENTS

Use only reagents of recognized analytical grade and only distilled water or water of equivalent purity.

4.1 **Thioacetamide,** powdered crystals.

WARNING : Thioacetamide is a carcinogen. All contact with human skin should be avoided.

4.2 **Sodium acetate,** saturated solution.

Dissolve 3 parts of sodium acetate trihydrate ($CH_3COONa.3H_2O$) in 1 part of water.

5 APPARATUS

5.1 **Test chamber,** comprising a container made of glass or suitable transparent plastics material, capable of being closed by a gas-tight cover. The actual dimensions of the test chamber are not specified but the requirements stated in this and subsequent clauses shall be met. Unless otherwise specified, the capacity of the test chamber shall be not less than 2 litres and not more than 20 litres.

All materials used in the construction of the test chamber shall be capable of resisting the action of volatile sulphides and shall not emit any gas or vapour likely to influence the corrosion of the materials under test.

5.2 **Plate,** made of inert non-metallic material, supported inside the test chamber to provide a level surface occupying 70 to 90 % of the cross-section of the chamber at least 10 mm and not more than 75 mm above the base of the chamber.

5.3 **Simple framework,** made of inert non-metallic material, placed inside the chamber to serve as a support for the moist paper (see 7.2) and as a means of suspension for test specimens (see 7.1).

5.4 **Constant temperature enclosure** or (if the test chamber cannot be accommodated in such an enclosure) **suitable cover or screen** capable of preventing any sudden temperature fluctuation or local temperature difference.

6 TEST SPECIMENS

6.1 Select the type and number of test specimens to be used according to the specification for the coating or products being tested. See also 7.4.