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Edition 1

Any reference to SABS EN 582 is deemed
to be a reference to this standard
(Government Notice No. 1373 of 8 November 2002)

SOUTH AFRICAN NATIONAL STANDARD

Thermal spraying — Determination of tensile adhesive strength

This national standard is the identical implementation of EN 582:1993, and is adopted with the permission of CEN, rue de Stassart 36, B-1050 Brussels.

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Table of changes

Change No.	Date	Scope
Nat. amdt 1	2007	Amended to change the designation from SABS to SANS, with no technical changes.

National foreword

This South African standard was approved by National Committee SABS/TC 107, *Metallic and other inorganic coatings*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This standard was published in March 2007. This SANS edition is technically identical to the first SABS edition (SABS EN 582:1993).

**Reaffirmed and reprinted in January 2014.
This document will be reviewed every five years
and be reaffirmed, amended, revised or withdrawn.**

EUROPEAN STANDARD
NORME EUROPÉENNE
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EN 582

October 1993

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Descriptors: Metal coatings, metal spraying, tension tests, determination, mechanical strength, adhesion

English version

Thermal spraying — Determination of tensile adhesive strength

Projection thermique — Mesure de l'adhérence par essais de traction

Thermisches Spritzen — Ermittlung der Haftzugfestigkeit

This European Standard was approved by CEN on 1993-10-01. 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

This European Standard has been prepared by Technical Committee CEN/TC 240, Thermal spraying and thermally sprayed coatings, of which the secretariat is held by DIN.

This draft European Standard was submitted to the formal vote and accepted by CEN as a European Standard.

The 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 April 1994, and conflicting national standards shall be withdrawn at the latest by April 1994.

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, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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1 Scope

In the test to determine the tensile adhesive strength of thermally sprayed deposits, the specimen is loaded in tension.

The test is conducted to determine the strength of the coating and/or the strength of the bond between the spray deposit and the parent metal.

The test is used to evaluate the effects of parent metal and spray deposit material, preparation of the surface of the workpiece, and the spraying conditions on the bond and adhesive strength of thermally sprayed coatings, or for routine supervision of the spray works.

Comparative statements are to be based in the test report.

NOTE. The tensile adhesive strength test method is not recommended for very thin and porous deposits. In this case, a bend test has proved to be more appropriate.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 10002-2 *Metallic materials — Tensile testing — Part 2 : Verification of the force measuring system of the tensile testing machines*

3 Definition

For the purpose of this standard the following definition applies.

tensile adhesive strength

The tensile adhesive strength R_H is the strength obtained in the tension test, calculated from the quotient of the maximum load F_m and the cross-section of the specimen at the fractured face.

4 Equipment

A tensile testing machine in accordance with EN 10002-2, class 1 and a clamping system are to be used, to ensure concentric clamping and loading of the specimens (see figure 1).

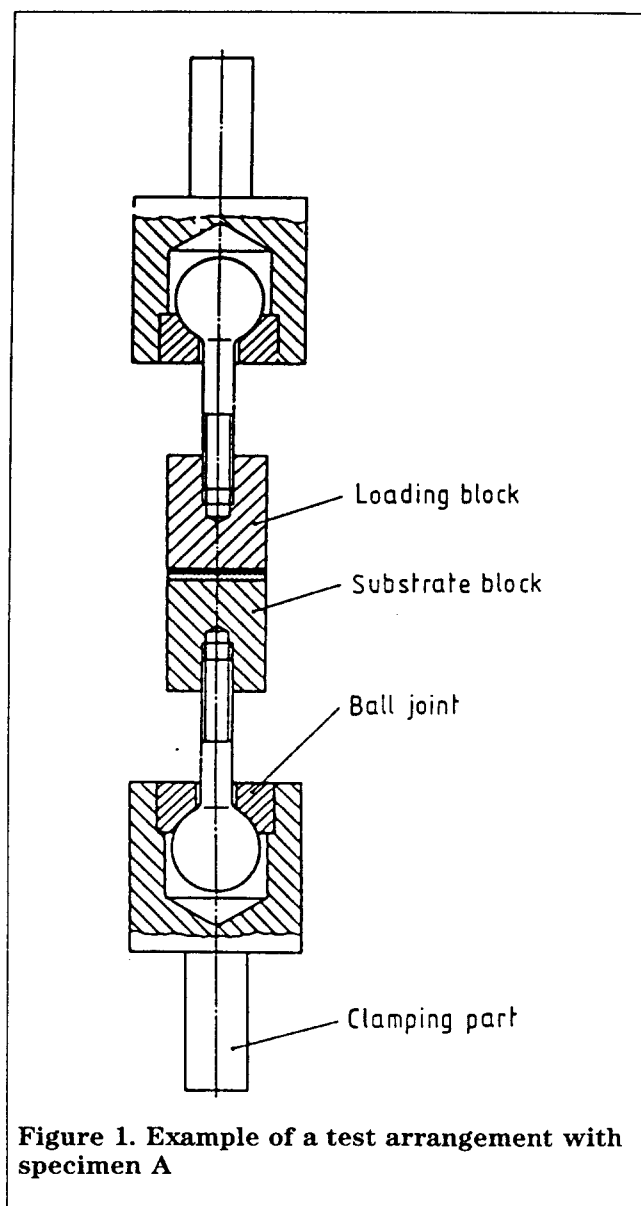


Figure 1. Example of a test arrangement with specimen A