

**Aerospace series - Metallic materials - Test method -
Shear test for wires and rivets**

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 3238:2010 sisaldab Euroopa standardi EN 3238:2010 ingliskeelset teksti.

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Standard on kättesaadav Eesti standardiorganisatsioonist.

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This standard is ratified with the order of Estonian Centre for Standardisation dated 30.11.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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English Version

**Aerospace series - Metallic materials - Test method - Shear test
for wires and rivets**

Série aérospatiale - Matériaux métalliques - Méthodes
d'essais - Essai de cisaillement pour fils et rivets

Luft- und Raumfahrt - Metallische Werkstoffe -
Prüfverfahren - Prüfung der Scherfestigkeit von Drähten
und Nieten

This European Standard was approved by CEN on 5 May 2010.

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Contents

Page

Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
Terms,	5
3 definitions, parameters and symbols	5
3.1 General terms.....	5
3.2 Other terms.....	5
3.2.1 Shear strength.....	5
3.2.2 Parameters and symbols	6
4 Health and safety	6
5 Principle	6
6 Testing requirements	6
6.1 Resources.....	6
6.1.1 Equipment/plant.....	6
6.1.2 Materials/reagents	8
6.1.3 Qualification of personnel	8
6.2 Test samples/test pieces – Test piece dimensions.....	8
6.3 Testing procedure.....	8
6.3.1 Temperature of test	8
6.3.2 Method of test	8
6.4 Expression of results	8
7 Test report	8

Foreword

This document (EN 3238:2010) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This 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of an identical text or by endorsement, at the latest by April 2011, and conflicting national standards shall be withdrawn at the latest by April 2011.

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Introduction

This standard is part of the series of EN metallic material standards for aerospace applications. The general organization of this series is described in EN 4258.

1 Scope

This standard specifies the requirements for shear testing rivet wire and rivets in metallic materials for aerospace applications.

It shall be applied when referred to in the EN technical specification or material standard unless otherwise specified on the drawing, order or inspection schedule.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 4259, *Aerospace series — Metallic materials — Definition of general terms* ¹⁾

EN ISO 7500-1, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system (ISO 7500-1:2004)*

ISO 286-1:1988, *ISO system of limits and fits — Part 1: Bases of tolerances, deviations and fits*

3 Terms, definitions, parameters and symbols

For the purposes of this standard, the terms and definitions given in EN 4259 and the parameters and symbols given in Table 1 apply.

3.1 General terms

See EN 4259.

3.2 Other terms

3.2.1 Shear strength

Shear strength (R_c) is given by:

$$R_c = \frac{F_m}{2 S_o} \quad \text{or} \quad R_c = 2 \frac{F_m}{\pi d_o^2}$$

where

d_o is the original diameter of the test piece;

F_m is the maximum force;

S_o is the original cross-sectional area of the test piece.

1) Published as ASD Pre-Standard at the date of publication of this standard.