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Space product assurance - Particle and UV radiation testing for space materials

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/15

Obsahuje: EN 16602-70-06:2014

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Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, odbor SÚTN, 2015
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

ICS 49.140

English version

Space product assurance - Particle and UV radiation testing for space materials

Assurance produit des projets spatiaux - Essais d'irradiation aux particules et aux ultraviolets pour matériaux d'un projet spatial

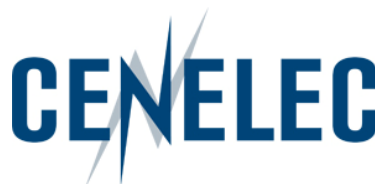
Raumfahrtproduktsicherung - Teilchen- und UV-Strahlungstests für Raumflugmaterialien

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**CEN-CENELEC Management Centre:
Avenue Marnix 17, B-1000 Brussels**

Table of contents

Foreword	4
1 Scope	5
2 Normative references	6
3 Terms, definitions and abbreviated terms	7
3.1 Terms from other standards.....	7
3.2 Terms specific to the present standard	7
3.3 Abbreviated terms and symbols.....	9
4 Principles	10
5 Requirements	12
5.1 Specifying test	12
5.1.1 General provision.....	12
5.1.2 Methodology for laboratory degrading factors definition	12
5.1.3 Methodology for irradiations performance	14
5.1.4 Specifying the irradiation test procedure	16
5.2 Preparing and performing test	18
5.2.1 General.....	18
5.2.2 Preparing the samples	18
5.2.3 Preparing the facilities and equipments.....	18
5.2.4 Running the radiation test procedure	19
5.3 Recording and reporting the test results	19
5.3.1 Test records.....	19
5.3.2 Test report	19
5.3.3 Acceptance criteria and nonconformance	19
Annex A (normative) Request for radiation test - DRD	21
Annex B (normative) Radiation test specifications and procedures (Work proposal) - DRD	22
Annex C (normative) Radiation test report - DRD	25
Bibliography	27

Figures

Figure 4-1: Test process overview.....10
Figure 4-2: Degrading factors specification.....11

Foreword

This document (EN 16602-70-06:2014) has been prepared by Technical Committee CEN/CLC/TC 5 "Space", the secretariat of which is held by DIN.

This standard (EN 16602-70-06:2014) originates from ECSS-Q-ST-70-06C.

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 2015, and conflicting national standards shall be withdrawn at the latest by April 2015.

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This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document has been developed to cover specifically space systems and has therefore precedence over any EN covering the same scope but with a wider domain of applicability (e.g. : aerospace).

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1

Scope

Materials used in space applications need to be evaluated for their behaviour under Particle and UV Radiation. As part of this evaluation often an exposure to a simulated space environment is performed that can raise questions regarding its accuracy and representativeness. The role of this Standard is to establish a baseline for the testing specification.

NOTE The environments covered are electromagnetic radiation and charged particles.

This Standard defines the procedures for electromagnetic radiation and charged particles testing of spacecraft materials.

These materials include for instance thermal control materials, windows, coatings, and structural materials.

The procedures include simulation of the environment and the properties to be verified.

This Standard excludes electronic components.

This standard may be tailored for the specific characteristic and constraints of a space project in conformance with ECSS-S-ST-00.

2

Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this ECSS Standard. For dated references, subsequent amendments to, or revision of any of these publications do not apply. However, parties to agreements based on this ECSS Standard are encouraged to investigate the possibility of applying the more recent editions of the normative documents indicated below. For undated references, the latest edition of the publication referred to applies.

EN reference	Reference in text	Title
EN 16601-00-01	ECSS-S-ST-00-01	ECSS system – Glossary of terms
EN 16603-10-04	ECSS-E-ST-10-04	Space engineering – Space environment
EN 16602-20	ECSS-Q-ST-20	Space product assurance – Quality assurance
EN 16602-20-07	ECSS-Q-ST-20-07	Space product assurance – Quality assurance for test centres
EN 16602-10-09	ECSS-Q-ST-10-09	Space product assurance – Nonconformance control system
EN 16602-70-02	ECSS-Q-ST-70-02	Space product assurance – Thermal vacuum outgassing tests for the screening of space materials
EN 16602-70-09	ECSS-Q-ST-70-09	Space product assurance – Measurements of thermo-optical properties of thermal control materials
	ISO 15856:2003	Space systems – Space environment – Simulation guidelines for radiation exposure of non-metallic materials
	ASTM-E-490	Standard Solar Constant and Zero Air Mass Solar Spectral Irradiance Tables

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