BS EN 16602-70-13:2015

BSI Standards Publication

Space product assurance — Measurements of the peel and pull-off strength of coatings and finishes using pressure-sensitive tapes

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National foreword

This British Standard is the UK implementation of EN 16602-70-13:2015. It supersedes BS EN 14099:2001 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ACE/68, Space systems and operations.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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English version

Space product assurance - Measurements of the peel and pull-off strength of coatings and finishes using pressure-sensitive tapes

Assurance produit des projets spatiaux - Mesure de la force d'arrachement des revêtements et apprêts de rubans auto-adhésifs

Raumfahrtproduktsicherung - Ermittlung der Schäl- und Abziehfestigkeit von Überzügen und Beschichtungen unter Anwendung von Haftbändern

This European Standard was approved by CEN on 11 October 2014.

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Foreword

This document (EN 16602-70-13:2015) has been prepared by Technical Committee CEN/CLC/TC 5 “Space”, the secretariat of which is held by DIN.

This standard (EN 16602-70-13:2015) originates from ECSS-Q-ST-70-13C Rev.1.

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of an identical text or by endorsement, at the latest by July 2015, and conflicting national standards shall be withdrawn at the latest by July 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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

This document supersedes EN 14099:2001.

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.

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Scope

This Standard details a test in which pressure-sensitive tapes are used to assess the suitability of, for example, coatings, paints, films and other thin materials, proposed for use on spacecraft and associated equipment.

Surface coatings, such as thermal control paints and corrosion protection coatings, are affected, both on the ground and after launch, by exposure to the environment.

It is therefore important that the adhesion of the coating to the relevant substrate remains at an acceptable level after exposure to the relevant environmental condition.

The following materials and assemblies are covered by this test method:

- organic coating, e.g. varnishes, paints and plastic films;
- metallic finishes on, for example, printed circuit boards, second-surface mirrors, thermal radiators, plastic films;
- adhesive layers;
- composite thin films;
- small assemblies, e.g. solar cells having attached glass covers.

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