

Electrical apparatus for potentially explosive atmospheres — Electrostatic hand-held spraying equipment

The European Standard EN 50050:2006 has the status of a
British Standard

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National foreword

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A list of organizations represented on GEL/31/-/18 can be obtained on request to its secretary.

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**Electrical apparatus for potentially explosive atmospheres -
Electrostatic hand-held spraying equipment**

Appareillage électrique pour atmosphères
explosibles -
Équipement manuel de projection
électrostatique

Elektrische Betriebsmittel für
explosionsgefährdete Bereiche -
Elektrostatische Handsprüheinrichtungen

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CENELEC

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

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Foreword

This European Standard was prepared by SC 31-8, Electrostatic painting and finishing equipment, of Technical Committee CENELEC TC 31, Electrical apparatus for explosive atmospheres.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50050 on 2006-05-01.

This European Standard supersedes EN 50050:2001.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2007-05-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2009-05-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 94/9/EC. See Annex ZZ.

This European Standard specifies the constructional and test requirements for hand-held and hand-operated electrostatic spraying and associated equipment which are used to spray flammable coating materials which may form explosive atmospheres. These spraying equipment are considered to be equipment of group II, category 2 in accordance with Directive 94/9/EC. It is taken for granted that the equipment will be used in mechanically ventilated spraying areas or under equivalent ventilation conditions.

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Introduction

When materials are sprayed with hand-held electrostatic spraying equipment, the material is converted into a cloud of droplets or particles directed to a surface to produce there a uniform layer of the required thickness and quality. The particles are charged by high voltage of tens of kilovolts or triboelectrically so that they are attracted by the earthed workpiece and deposited on it.