EI 1529

# Aviation fuelling hose and hose assemblies

7th edition

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# EI STANDARD 1529

# AVIATION FUELLING HOSE AND HOSE ASSEMBLIES

7th edition

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# FOREWORD

This seventh edition of EI Standard 1529 has been produced by the Energy Institute (EI) Aviation Committee, with technical feedback from other industry stakeholders. It replaces the sixth edition and those provisions dating from 2005 should therefore be disregarded.

The main revisions incorporated in this edition of EI Standard 1529 are:
– An increase in the operable temperature range of all hoses to 65 °C (149 °F).
– The change in length for hose Types E and F having been increased to a maximum of +12 % during the hydrostatic proof test.
– The addition (by reference to ISO 1825) of a flammability resistance test.
– An increase to 10 000 in the number of cycles required for the kink resistance test.

EI standards are published as an aid to procurement of standardised equipment and materials. These standards are not intended to inhibit purchasers or producers from purchasing or producing products made to specifications other than those of the EI.

Purchasers should be aware of the difference in requirements for Type E hose between this Standard and ISO 1825 (formerly EN 1361). Type E hose in ISO 1825 is an electrically bonded hose which calls for at least two low-resistance electrically conductive wires to be present within the materials of construction in addition to a conductive cover. Type E hose in this edition of EI 1529 has the metallic conducting helical support embedded in a conductive layer but it is not a requirement to have the two additional electrically conductive wires.

For the purpose of this publication the definitions given in Annex A apply irrespective of any other meaning the words may have in other connections.

Any manufacturer wishing to offer aviation fuelling hose stated to comply with this standard is responsible for complying with all of the mandatory provisions included herein.

Note: High aromatic aviation gasoline formulations (>30 %) are under design development. If such formulations are released to the market then EI 1529 will be updated to include a test protocol.

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It is hoped and anticipated that this publication will assist those involved in aviation fuel handling at airports. Every effort has been made by the EI to assure the accuracy and reliability of the data contained in this publication; however, the EI makes no representation, warranty, or guarantee in connection with this publication and hereby expressly disclaims any liability or responsibility for loss or damage resulting from its use or for the violation of any local or regional laws or regulations with which this publication may conflict.

Suggested revisions are invited and should be submitted to the Technical Department, Energy Institute, 61 New Cavendish Street, London, W1G 7AR (e: **technical@energyinst.org**).

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# 1 INTRODUCTION

## 1.1 SCOPE

This standard addresses performance requirements and manufacturers' test procedures for aircraft fuelling hose, hose couplings and hose assemblies suitable for a broad range of aviation fuel servicing equipment, including fuellers and hydrant servicers. The hoses to which this standard is applicable shall be capable of handling the full spectrum of aviation fuels as specified in ASTM and UK Defence Standards. The following types of aviation fuelling hoses are not within the purview of this standard (also see 2.4.1):

– Fully collapsible.
– Type A hoses.
– Type B hoses.

The specifications of this standard are intended for the convenience of both manufacturers and users. Users and manufacturers are not prohibited from purchasing or producing hoses that conform to other standards. The user should refer to the Rubber Manufacturers Association *Hose handbook*, and other specifications.

Each purchaser should conduct test verifications independent of any tests or inspections performed by the hose manufacturer. Such user tests should be performed in accordance with this standard.

## 1.2 RETROACTIVITY

Hoses and hose assembly types to be represented and labelled as meeting EI Standard 1529, shall comply fully with the requirements of this seventh edition. For any hose or hose assembly that has qualified to EI 1529 6th edition, the manufacturer shall ensure that the hose or hose assembly conforms to the specifications of this seventh edition within six months to retain its existing qualification.

## 1.3 METRICATION

Customary units have been converted to SI units wherever practicable and rounded-off. The unit conversion factors used in this publication are given in Annex A. It should be noted, however, that hoses and couplings constructed to SI units may be incompatible with hoses and couplings constructed to customary units.