

# INTERNATIONAL STANDARD



# 1825

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Rubber hoses for aircraft ground fuelling without static conducting wire

*Tuyaux en élastomère pour ravitaillement des avions, sans câble métallique de mise à la terre*

First edition — 1975-03-01

UDC 678.06 : 621.643.004.1 : 629.7.082.6

Ref. No. ISO 1825-1975 (E)

**Descriptors :** rubber products, hoses, aircraft equipment, refuelling, specifications, dimensions, tests.

Price based on 2 pages

## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 45 has reviewed ISO Recommendation R 1825 and found it technically suitable for transformation. International Standard ISO 1825 therefore replaces ISO Recommendation R 1825-1970 to which it is technically identical.

ISO Recommendation R 1825 was approved by the Member Bodies of the following countries :

Austria	India	South Africa, Rep. of
Belgium	Iran	Spain
Brazil	Israel	Switzerland
Chile	Italy	Thailand
Czechoslovakia	Netherlands	Turkey
Egypt, Arab Rep. of	New Zealand	United Kingdom
France	Peru	U.S.A.
Greece	Poland	U.S.S.R.
Hungary	Portugal	

No Member Body expressed disapproval of the Recommendation.

No Member Body disapproved the transformation of ISO/R 1825 into an International Standard.

# Rubber hoses for aircraft ground fuelling without static conducting wire

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the minimum acceptable requirements for satisfactory performance of rubber hoses for aircraft ground fuelling without static conducting wire.

### Type A

*Soft wall, smooth bore, collapsing type hose* : primarily for fuelling aircraft from tank trucks or pits where the hose will be rolled flat for stowage on a reel.

### Type B

*Rigid, smooth bore, non-collapsing type hose* : primarily for fuelling aircraft. Not intended for flexible connection between tractor and trailer, nor to be collapsed for drainage.

## 2 REFERENCES

ISO/R 36, *Determination of the adhesion strength of vulcanized rubbers to textile fabrics*.

ISO 1402, *Rubber hose — Hydrostatic testing*.

ISO/R 1817, *Vulcanized rubbers — Methods of test for resistance to liquids*.

## 3 SPECIFICATION

### 3.1 Pressures

	Type A	Type B
Maximum working pressure	0,6 MN/m <sup>2</sup>	1,0 MN/m <sup>2</sup>
Test pressure	1,2 MN/m <sup>2</sup>	2,0 MN/m <sup>2</sup>
Minimum bursting pressure	3,8 MN/m <sup>2</sup>	6,3 MN/m <sup>2</sup>

### 3.2 Dimensions and tolerances

See table 1.

TABLE 1

Type	Nominal bore	Tolerance on nominal bore	Mass per metre (without fittings) max.
	mm	mm	kg
A	38	± 1,50	1,2
	50	± 1,50	1,5
	63	± 1,50	1,9
B	38	± 1,50	1,6
	50	± 1,50	2,2
	63	± 1,50	2,6
	76	± 2,00	3,7
	102	± 2,00	8,0



## 4 PHYSICAL TESTS

See table 2.

TABLE 2

Test	Reference to test method	Information on test procedure and results
<i>Tests on full-length hose</i>		
Flexibility	To be added later	To be added later
Hydrostatic test	ISO 1402	Variation of length under test pressure: 7 % max.
Fitting compatibility	To be added later	To be added later
<i>Test on a piece of hose cut from a length</i>		
Hydrostatic test	ISO 1402	No leakage under test pressure
<i>Tests on a special test piece</i>		
Resistance to liquids	ISO/R 1817	Lining : Change in volume 50 % max. after immersion for 48 h at room temperature in a 70%/30 % (V/V) mixture of <i>iso</i> -octane/toluol Cover : Change in volume 100 % max. after immersion for 48 h at room temperature in a 70 %/30 % (V/V) mixture of <i>iso</i> -octane/toluol
Adhesion	ISO/R 36 Hose method	Tube to reinforcement : 2 kN/m Reinforcement to cover : 2 kN/m