
**Aerospace — Aramid reinforced
lightweight polytetrafluoroethylene
(PTFE) hose assemblies, classification
135 °C/20 684 kPa (275 °F/3 000 psi) and
135 °C/21 000 kPa (275 °F/3 046 psi) —
Procurement specification**

*Aéronautique et espace — Tuyauteries flexibles en
polytétrafluoroéthylène (PTFE) renforcement aramide, série légère,
classification 135 °C/20 684 kPa (275 °F/3 000 psi) et
135 °C/21 000 kPa (275 °F/3 046 psi) — Spécification
d'approvisionnement*



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

This document is a preview generated by EVS

© ISO 2006

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword.....	iv
1 Scope	1
2 Normative references	1
3 Classification	2
4 Requirements	2
4.1 Limits of application	2
4.2 Qualification	2
4.3 Materials	2
4.4 Construction	3
4.5 Inner tube requirements	4
4.6 Hose assembly	5
4.7 Fitting threads	6
4.8 Part numbering of interchangeable parts	7
4.9 Identification of products	7
4.10 Workmanship	7
4.11 Hose assembly — Test and performance requirements	8
5 Quality assurance	12
5.1 Responsibility for inspection	12
5.2 Classification of inspections	12
5.3 Qualification inspections	12
5.4 Quality conformance inspections	15
5.5 Test conditions	16
5.6 Inspection methods	17
6 Preparation for delivery	18
6.1 Storage and packaging	18
6.2 Marking	18
7 Ordering data	18
Annex A (informative) Equivalent materials	19
Annex B (informative) Qualification procedures and fire resistance specifications	21
Bibliography	22

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 23933 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 10, *Aerospace fluid systems and components*.

This document is a preview generated by EVS

Aerospace — Aramid reinforced lightweight polytetrafluoroethylene (PTFE) hose assemblies, classification 135 °C/20 684 kPa (275 °F/3 000 psi) and 135 °C/21 000 kPa (275 °F/3 046 psi) — Procurement specification

1 Scope

This International Standard specifies requirements for aramid reinforced lightweight polytetrafluoroethylene (PTFE) hose assemblies for use in aircraft hydraulic, oil and fuel systems at temperatures between – 55 °C and 135 °C (– 65 °F and 275 °F) and at a nominal pressure of 21 000 kPa (210 bar) (3 046 psi) or 20 684 kPa (3 000 psi). The hose assemblies are also suitable for use within the same temperature and pressure limitations in aircraft pneumatic systems where some gaseous diffusion through the wall of the PTFE liner may be tolerated.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2685:1998, *Aircraft — Environmental test procedure for airborne equipment — Resistance to fire in designated fire zones*

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

ISO 3161:1999, *Aerospace — UNJ threads — General requirements and limit dimensions*

ISO 5855-3:1990, *Aerospace — MJ threads — Part 3: Limit dimensions for fittings for fluid systems*

ISO 6772:1988, *Aerospace — Fluid systems — Impulse testing of hydraulic hose, tubing and fitting assemblies*

ISO 7258:1984, *Polytetrafluoroethylene (PTFE) tubing for aerospace applications — Methods for the determination of the density and relative density*

ISO 8829-2, *Aerospace — Test methods for polytetrafluoroethylene (PTFE) innertube hose assemblies — Part 2: Non-metallic braid*

SAE AS 150, *Hose assembly, type classifications of, basic performance and fire resistance*

SAE AS 1055, *Fire testing of flexible hose, tube assemblies, coils, fittings and similar system components*

SAE AS 1241, *Fire resistant phosphate ester hydraulic fluid for aircraft*