

# INTERNATIONAL STANDARD

**ISO**  
**9938**

Second edition  
1994-12-15

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## **Aerospace — Polytetrafluoroethylene (PTFE) hose assemblies, classification 204 °C/28 000 kPa — Procurement specification**

*Aéronautique et espace — Tuyauteries flexibles en polytétrafluoroéthylène  
(PTFE), classification 204 °C/28 000 kPa — Spécification  
d'approvisionnement*



Reference number  
ISO 9938:1994(E)

## 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.

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.

International Standard ISO 9938 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 10, *Aerospace fluid systems and components*.

This second edition cancels and replaces the first edition (ISO 9938:1990), of which it constitutes a technical revision.

Annex A of this International Standard is for information only.

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International Organization for Standardization  
Case Postale 56 • CH-1211 Genève 20 • Switzerland  
Printed in Switzerland

# Aerospace — Polytetrafluoroethylene (PTFE) hose assemblies, classification 204 °C/28 000 kPa — Procurement specification

## 1 Scope

This International Standard specifies requirements for polytetrafluoroethylene (PTFE) hose assemblies for use in aircraft hydraulic systems at temperatures between  $-55\text{ °C}$  and  $+204\text{ °C}$  and at a nominal pressure up to 28 000 kPa (280 bar). 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.

The use of these hose assemblies in high-pressure pneumatic storage systems is not recommended. In addition, installations in which the limits specified in this International Standard are exceeded, or in which the application is not covered specifically by this International Standard, for example for oxygen, shall be subject to the approval of the purchaser.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2685:1992, *Aircraft — Environmental conditions and test procedures for airborne equipment — Resistance to fire in designated fire zones.*

ISO 2859-1:1989, *Sampling procedures for inspection by attributes — Part 1: Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection.*

ISO 5855-3:1988, *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 8829:1990, *Aerospace — Polytetrafluoroethylene (PTFE) hose assemblies — Test methods.*

## 3 Requirements

### 3.1 Qualification

Hose assemblies supplied in accordance with this International Standard shall be representative of products which have been subjected to and which have successfully passed the requirements and tests specified in this International Standard.