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Plastics hoses — Textile-reinforced types for compressed-air applications — Specification

*Tuyaux en plastique — Types armés de textile pour applications avec
de l'air comprimé — Spécifications*



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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 5774 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 1, *Hoses (rubber and plastics)*.

This third edition cancels and replaces the second edition (ISO 5774:1997), which has been technically revised.

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Introduction

This International Standard has been prepared to provide minimum acceptable requirements for the satisfactory performance of flexible thermoplastics hoses, textile reinforced, for compressed-air applications.

Maximum working pressures of each hose type are specified with two operating temperatures.

Some hose materials will require a hydrolysis test (given in Annex A).

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Plastics hoses — Textile-reinforced types for compressed-air applications — Specification

1 Scope

This International Standard specifies the requirements for four types of flexible thermoplastic hose, textile reinforced, for compressed-air applications in the temperature range from $-10\text{ }^{\circ}\text{C}$ to $+60\text{ }^{\circ}\text{C}$.

The four types are classified as light service for a maximum working pressure of 7 bar at $23\text{ }^{\circ}\text{C}$ and 4,5 bar at $60\text{ }^{\circ}\text{C}$, medium service for a maximum working pressure of 10 bar at $23\text{ }^{\circ}\text{C}$ and 6,5 bar at $60\text{ }^{\circ}\text{C}$, heavy service for a maximum working pressure of 16 bar at $23\text{ }^{\circ}\text{C}$ and 11 bar at $60\text{ }^{\circ}\text{C}$, and heavy service for use in mining for a maximum working pressure of 25 bar at $23\text{ }^{\circ}\text{C}$ and 13 bar at $60\text{ }^{\circ}\text{C}$.

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 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 105-A02, *Textiles — Tests for colour fastness — Part A02: Grey scales for assessing change in colour*

ISO 176:2005, *Plastics — Determination of loss of plasticizers — Activated carbon method*

ISO 188, *Rubber, vulcanized or thermoplastic — Accelerated ageing and heat resistance tests*

ISO 1307, *Rubber and plastics hoses — Hose sizes, minimum and maximum inside diameters, and tolerances on cut-to-length hoses*

ISO 1402, *Rubber and plastics hoses and hose assemblies — Hydrostatic testing*

ISO 1746, *Rubber or plastics hoses and tubing — Bending tests*

ISO 1817, *Rubber, vulcanized — Determination of the effect of liquids*

ISO 4671, *Rubber and plastics hoses and hose assemblies — Methods of measurement of dimensions*

ISO 4672:1997, *Rubber and plastics hoses — Sub-ambient temperature flexibility tests*

ISO 8033, *Rubber and plastics hoses — Determination of adhesion between components*

ISO 8330, *Rubber and plastics hoses and hose assemblies — Vocabulary*

ISO 8331, *Rubber and plastics hoses and hose assemblies — Guide to selection, storage, use and maintenance*

ISO 11758:1995, *Rubber and plastics hoses — Exposure to a xenon arc lamp — Determination of changes in colour and appearance*