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**BS 6391:2009**



# **BSI British Standards**

## **Specification for non-percolating layflat delivery hoses and hose assemblies for fire fighting purposes**

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### **Publishing information**

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### **Supersession**

This British Standard supersedes BS 6391:1983, which is withdrawn.

### **Information about this document**

This British Standard has been revised to bring it up to date. The test methods have been clarified and a method of test for hot surface resistance (Annex G) has been added.

### **Presentational conventions**

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

### **Contractual and legal considerations**

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a British Standard cannot confer immunity from legal obligations.**

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This British Standard specifies requirements for types 1, 2 and 3 of non-percolating layflat delivery hoses for fire fighting purposes, which are intended for use at working pressures not exceeding 15 bar, and at a minimum ambient temperature of  $-20\text{ }^{\circ}\text{C}$ .

The hoses covered are suitable for use with fire hose couplings conforming to BS 336. Additional requirements are specified for hose assemblies, which are hoses supplied with couplings conforming to BS 336 already fitted.

*NOTE 1* The working pressure of the hoses in service will not normally exceed 10 bar, but they can be used at pressures up to 15 bar, e.g. when connected to high rise mains.

*NOTE 2*  $1\text{ bar} = 10^5\text{ N/m}^2 = 10^5\text{ Pa}$ . All pressure values specified in this standard are gauge pressures.

*NOTE 3* BS EN 14540 specifies requirements for non-percolating layflat hoses for fixed systems. Requirements for semi-rigid hoses are given in BS EN 1947 for pumps and vehicles and in BS EN 694 for fixed systems.

Annex A gives recommendations for the pressure testing of hoses in service. Annex B specifies the minimum frequency of tests.

## 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.

BS 336:2009, *Specification for fire hose couplings and ancillary equipment* (in preparation)

BS 1052, *Specification for mild steel wire for general engineering purposes*

BS 3558-2, *Glossary of rubber terms – Part 2: Additional British terms*

BS EN ISO 1402, *Rubber and plastics hoses and hose assemblies – Hydrostatic testing*

BS EN ISO 4671:2007, *Rubber and plastics hoses and hose assemblies – Methods of measurement of the dimensions of hoses and the lengths of hose assemblies*

BS EN ISO 8330, *Rubber and plastics hoses and hose assemblies – Vocabulary*

BS ISO 1431-1:2004, *Rubber, vulcanized or thermoplastic – Resistance to ozone cracking – Part 1: Static and dynamic strain testing*

BS ISO 1817, *Rubber, vulcanized – Determination of the effect of liquids*

FEPA 43-1-2006, *Grains of fused aluminium oxide, silicon carbide and other abrasive materials for coated abrasives, Macrogrits P 12 to P 220*, Paris: Fepa Abrasives <sup>1)</sup>

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<sup>1)</sup> Available from [www.fepa-abrasives.org](http://www.fepa-abrasives.org)