

# ISO 19013-1:2019 (E)

## Rubber hoses and tubing for fuel circuits for internal combustion engines — Specification — Part 1: Diesel fuels

---

### Contents

	Foreword
1	Scope
2	Normative references
3	Terms and definitions
4	Classification
5	Sizes
5.1	Tubing
5.2	Hoses
6	Performance requirements for hose and tubing
7	Frequency of testing
8	Marking
Annex A	(normative) Cleanliness and extractables test
A.1	Scope
A.2	Principle
A.3	Apparatus and materials
A.4	Procedure
Annex B	(normative) Resistance of tubing to tearing
B.1	Scope
B.2	Principle
B.3	Apparatus
B.4	Test pieces
B.4.1	Shape and dimensions
B.4.2	Preparation
B.4.3	Number
B.4.4	Conditioning
B.5	Procedure
B.6	Expression of results
Annex C	(normative) Method for determining the resistance to surface contamination
Annex D	(normative) Life-cycle test
D.1	Scope
D.2	Apparatus
D.3	Procedure
Annex E	(informative) Example of how a non-standard type of hose or tubing could be specified by an original equipment manufacturer (OEM) using a matrix
Annex F	(normative) Type approval tests (as defined in Clause 6)
Annex G	(normative) Routine tests (as defined in Clause 7)
Annex H	(informative) Production acceptance tests