

ISO 8066-3:2020 (E)

Rubber and plastics hoses and hose assemblies for automotive air conditioning — Specification — Part 3: Refrigerant 1234yf

Contents

	Foreword
1	Scope
2	Normative references
3	Terms and definitions
4	Classification
4.1	Types
4.1.1	General
4.1.2	Type A — Rubber, textile-reinforced, rubber-covered
4.1.3	Type B — Rubber, wire-reinforced, rubber-covered
4.1.4	Type C — Barrier, textile-reinforced, rubber-covered
4.1.5	Type D — Thermoplastic, textile-reinforced, thermoplastic-covered
4.1.6	Type E — Veneer, textile-reinforced, rubber-covered
4.1.7	Type F — Veneer, barrier, thermoplastic liner
4.2	Pressure classes
4.3	Moisture-ingression grades
4.4	Refrigerant-permeation grades
5	Dimensions
5.1	Hose inside diameters
5.2	Hose wall thickness variation
6	Testing and performance requirements
6.1	Test conditions
6.2	Leakage
6.2.1	Method A for type test and production test
6.2.2	Procedure for method A
6.2.3	Method B for routine test
6.2.4	Procedure for method B
6.3	Refrigerant permeation
6.3.1	Requirement
6.3.2	Procedure
6.4	Ageing
6.4.1	Requirement
6.4.2	Procedure
6.5	Low-temperature test
6.6	Vacuum resistance
6.6.1	General
6.6.2	Requirement
6.6.3	Procedure
6.7	Length change under pressure
6.7.1	Requirement
6.7.2	Procedure
6.8	Minimum bursting pressure
6.9	Proof pressure
6.9.1	Requirement
6.9.2	Procedure
6.10	Extraction by R1234yf
6.11	Ozone resistance
6.12	Hose cleanliness

- 6.12.1 Requirement
- 6.12.2 Procedure
- 6.13 Impulse test
- 6.13.1 Requirement
- 6.13.2 Procedure
- 6.14 Moisture ingress ion
- 6.15 Coupling integrity (sealability)
- 7 Frequency of testing
- 8 Marking
- 9 Test report
- 10 Recommendations for packaging and storage

Annex A (Normative) Determination of refrigerant permeation

- A.1 Principle
- A.2 Apparatus
- A.3 Test assemblies
- A.4 Procedure
- A.4.1 Preliminary operations
- A.4.2 Method 1
- A.4.3 Method 2
- A.4.4 Determination
- A.5 Calculation
- A.6 Test report

Annex B (normative) Low-temperature test

- B.1 Principle
- B.2 Test assembly
- B.3 Procedure
- B.4 Test report

Annex C (normative) Determination of amount of matter extracted from hoses by liquid R1234yf

- C.1 Principle
- C.2 Test assembly
- C.3 Procedure
- C.4 Expression of results
- C.5 Test report

Annex D (normative) Impulse test

- D.1 Principle
- D.2 Apparatus
- D.3 Test fluid
- D.4 Test temperature
- D.5 Test pieces
- D.6 Procedure
- D.7 Expression of results
- D.8 Test report

Annex E (normative) Moisture ingress ion test

- E.1 Expression of results
- E.2 Apparatus and material (see Figure E.1)
- E.3 Test assemblies
- E.4 Procedure
- E.5 Calculation
- E.6 Test report

Annex F (normative) Coupling integrity (sealability)

- F.1 Principle
- F.2 Test assemblies
- F.3 Procedure
- F.4 Expression of results

- F.5 Test report**
- Annex G (normative) Test frequency**
- Annex H (informative) Production tests**

Page count: 28