

ISO 4925:2020 (E)

Road vehicles — Specification of non-petroleum-based brake fluids for hydraulic systems

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Materials
5	Specifications
6	Test methods
6.1	Viscosity
6.1.1	General
6.1.2	Repeatability (single analyst)
6.1.3	Reproducibility (multi-laboratory)
6.2	Equilibrium reflux boiling point (ERBP)
6.2.1	General
6.2.2	Preparation of apparatus
6.2.3	Test procedure
6.2.4	Repeatability (single analyst)
6.2.5	Reproducibility (multi-laboratory)
6.2.6	Wet ERBP test
6.2.6.1	Apparatus
6.2.6.2	Test procedure
6.3	pH
6.4	Fluid stability
6.4.1	High-temperature stability
6.4.2	Chemical stability
6.5	Corrosion
6.5.1	Metal strip characteristics prior to testing
6.5.2	Preparation of joints
6.5.3	Test procedure
6.6	Fluidity and appearance at low temperatures
6.6.1	At -40 °C for 144 h
6.6.2	At -50 °C for 6 h
6.7	Water tolerance
6.7.1	At -40 °C for 22 h
6.7.2	At 60 °C for 22 h
6.8	Compatibility/miscibility with ISO 4926 fluid
6.8.1	At -40 °C for 22 h
6.8.2	At 60 °C for 22 h
6.9	Resistance to oxidation
6.10	Effect on rubber
6.10.1	Test procedures
6.10.1.1	At 120 °C — SBR cups
6.10.1.2	At 120 °C — Standard EPDM slabstock
6.10.2	Repeatability (single analyst)
6.10.3	Reproducibility (multi-laboratory)
6.11	Reserve alkalinity according to ASTM D 1121

Annex A (normative) ISO styrene-butadiene rubber (SBR) brake cups for testing brake fluid

- A.1 Composition**
- A.2 Procedure for mixing rubber compound**
- A.3 Properties of the rubber compound**
- A.4 Brake cups prepared from rubber compound**

Annex B (normative) Corrosion test strips

Annex C (informative) Corrosion strip assembly

Annex D (normative) Standard ethylene, propylene and diene (EPDM) terpolymer rubber slabstock

- D.1 Formulation of rubber compound**
- D.2 Procedure for mixing rubber compound**
- D.3 Properties of rubber compound**
- D.4 Slabstock prepared from rubber compound**

Annex E (normative) Triethylene glycol monomethyl ether (TEGME) brake fluid grade

- E.1 Properties of TEGME**
- E.2 Gas chromatographic analysis**
 - E.2.1 General**
 - E.2.2 Column preparation**
 - E.2.3 Operating parameters**
 - E.2.4 Procedure**

Page count: 25