ISO 21058:2019-12 (E)

Road vehicles - Dimethyl Ether (DME) refuelling connector

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative References 1

3 Termsanddefinitions 1

4 General construction requirements 3

5 Nozzles 4

6 Standard receptacle dimensions 4

7 Receptacles 5

8 Instructions 6

9 Marking 6

10 Tests 7
10.1 General requirements 7
10.2 Impact resistance 7
10.2.1 Nozzle test 7
10.2.2 Receptacle test 7
10.3 Leakage at room temperature 8
10.4 Abnormal loads 8
10.4.1 Test in unpressurised condition 9
10.4.2 Test in pressurised condition 9
10.5 Mounting hardware torque 10
10.6 Leakage at low and high temperatures 10
10.7 Nozzle freezing 10
10.8 Durability 10
10.8.1 Endurance 10
10.8.2 Corrosion resistance 12
10.8.3 Brass material compatibility 13
10.8.4 Resistance to dry heat 13
10.8.5 Ozone ageing 13
10.8.6 Temperature cycle 14
10.8.7 Compatibility to Dimethyl Ether 14
10.8.8 Electrical continuity 14
10.9 Hydrostatic strength 14
10.10 Oxygen ageing 15
10.11 Non-metallic material immersion 15
10.12 Vibration resistance 16
10.13 Creep 16
10.14 Automotive fluid exposure 16
10.14.1 General 16
10.14.2 Test method 16
10.14.3 Fluids 17
10.14.4 Pass criteria 17

Annex A (normative) Critical dimensions of the nozzle 18

Annex B (informative) Manufacturing and production test plan 19

Bibliography 20