

# ISO/TR 11954:2024-01 (E)

## Fuel cell road vehicles - Performance measurement - Vehicles fuelled with compressed hydrogen

---

### Contents

	Page
Foreword.....	iv
<b>1 Scope.....</b>	<b>1</b>
<b>2 Normative references.....</b>	<b>1</b>
<b>3 Terms and definitions.....</b>	<b>1</b>
<b>4 Parameters, units and accuracy of measurements.....</b>	<b>3</b>
<b>5 Test conditions.....</b>	<b>3</b>
5.1 Vehicle conditions.....	3
5.2 Atmospheric conditions.....	4
5.2.1 Ambient temperature and atmospheric pressure.....	4
5.2.2 Air density.....	4
5.2.3 Wind speed.....	4
5.2.4 Relative humidity.....	4
5.3 Track conditions.....	4
5.3.1 General conditions.....	4
5.3.2 Straight track.....	4
5.3.3 Loop track.....	5
5.3.4 Single direction test.....	5
<b>6 Preconditioning of the vehicle.....</b>	<b>5</b>
6.1 Hydrogen refuelling.....	5
6.2 RESS state of charge preconditioning of externally chargeable FCHEV.....	5
6.3 Warming up.....	6
6.4 Selection of driving mode.....	6
<b>7 Test sequence.....</b>	<b>6</b>
7.1 Test sequence for non-externally chargeable FCHEV.....	6
7.2 Test sequence for externally chargeable FCHEV.....	6
<b>8 Test procedure.....</b>	<b>7</b>
8.1 Maximum speed.....	7
8.1.1 Standard test procedure.....	7
8.1.2 Single direction test procedure.....	7
8.2 Maximum thirty minutes speed.....	8
8.3 Acceleration ability ( $v_1$ to $v_2$ ).....	8
8.3.1 Acceleration ability 0 km/h to 50 km/h.....	8
8.3.2 Acceleration ability 50 km/h to 80 km/h.....	9
8.4 Speed uphill.....	9
8.5 Hill starting ability.....	9
8.5.1 Principle.....	9
8.5.2 Procedure.....	9
8.5.3 Evaluation of $\alpha_0$ .....	10
<b>Annex A (informative) Test results of performance measurements.....</b>	<b>11</b>
<b>Annex B (informative) Quantity of electricity measurement of the RESS.....</b>	<b>13</b>
<b>Bibliography.....</b>	<b>15</b>