

# ISO 17536-1:2015-12 (E)

## Road vehicles - Aerosol separator performance test for internal combustion engines - Part 1: General

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Terms, definitions, symbols and units .....</b>	<b>1</b>
2.1	Terms and definitions .....	1
2.2	Symbols and units .....	4
<b>3</b>	<b>Measurement equipment accuracy .....</b>	<b>4</b>
<b>4</b>	<b>Absolute filter, wall flow trap and leakage .....</b>	<b>5</b>
4.1	Absolute filter .....	5
4.1.1	Absolute filter material .....	5
4.1.2	Absolute filter mass measurement method .....	5
4.1.3	Absolute media measurement process validation .....	5
4.2	Wall flow trap .....	5
4.2.1	Weight measurement .....	5
4.2.2	Validation of wall flow trap liquid oil efficiency .....	5
4.2.3	Validation of wall flow trap aerosol efficiency .....	6
4.3	Leakage .....	6
<b>5</b>	<b>Principles for aerosol separator performance tests .....</b>	<b>6</b>
5.1	General .....	6
5.2	Test equipment .....	6
5.2.1	Grounding .....	6
5.2.2	Upstream sample probe .....	7
5.2.3	Upstream particle counter .....	7
5.2.4	Particle counter calibration .....	7
5.2.5	Maximum particle concentration .....	7
5.2.6	Particle counter flow .....	8
5.3	Determination of gravimetric separation efficiency .....	8
5.3.1	General .....	8
5.3.2	Calculations .....	8
<b>Annex A (normative)</b>	<b>Explanation of differential pressure and pressure loss of an aerosol separator .....</b>	<b>10</b>
<b>Annex B (normative)</b>	<b>Test equipment .....</b>	<b>11</b>
<b>Annex C (informative)</b>	<b>Aerodynamic diameter .....</b>	<b>13</b>
<b>Annex D (informative)</b>	<b>Isokinetic sampling probes and information .....</b>	<b>15</b>
<b>Annex E (informative)</b>	<b>Life reference .....</b>	<b>18</b>
<b>Annex F (normative)</b>	<b>Validation of the absolute filter media .....</b>	<b>19</b>
<b>Annex G (normative)</b>	<b>Leakage .....</b>	<b>20</b>

<b>Annex H (informative)Determinationofmaximumefficiencyaerosolconcentration .....</b>	<b>21</b>
<b>Annex I (informative)Testequipment--Wallflowtrapdesign .....</b>	<b>22</b>
<b>Bibliography .....</b>	<b>23</b>