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#### ANNEX III

#### PART 3

# Test on spray-suppression devices of the air/water separator type

#### 1. PRINCIPLE

This test is intended to determine the effectiveness of a porous material intended to retain the water with which it has been sprayed by means of a pressurised air/water pulveriser.

The equipment used for the test must simulate the conditions to which the material would be submitted, with regard to the volume and speed of the water sprays produced by the tyres, if it were fitted to a vehicle.

## 2. EQUIPMENT

See Figure 9 in Annex VI for a description of the test assembly.

- 3. TEST CONDITIONS
- 3.1. The tests must be carried out in a closed room with a still-air environment.
- 3.2. The ambient temperature and the temperature of the test pieces must be  $21 (\pm 3)$  °C.
- 3.3. De-ionised water must be used.
- 3.4. The test pieces must be prepared for each test by wetting.
- 4. PROCEDURE
- 4.1. Secure a  $305 \times 100$  mm sample vertically in the test assembly, check that there is no space between the sample and the upper curved plate and that the tray is properly in position. Fill the pulveriser tank with  $1 \pm 0,005$  litres of water and place this as described in the diagram.
- 4.2. The pulveriser must be regulated as follows:

pressure (at : 5 bar + 10 % / - 0 %

pulveriser)

flowrate : 1 litre/minute  $\pm$  5 seconds

pulverisation : circular,  $50 \pm 5$  mm in diameter at  $200 \pm 5$  mm from the sample, nozzle

 $5 \pm 0.1$  mm in diameter.

- 4.3. Pulverise until there is no more water mist and note the time taken. Let the water flow out of the sample on to the tray for 60 seconds and measure the volume of water collected. Measure the quantity of water left in the pulveriser tank. Calculate the percentage by volume of water collected versus the volume of water pulverised.
- 4.4. Carry out the test five times and calculate the average percentage of the quantity collected. Check before each test that the tray, pulveriser tank and measuring vessel are dry.
- 5. RESULTS
- 5.1. The average percentage calculated in point 4.4 must be 85 % or higher.

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- 5.2. If within a series of five tests the highest and lowest percentages of water collected depart from the average percentage by more than 5 %, the series of five tests must be repeated. If within a second series of five tests the highest and lowest percentages of water recovered again depart from the average percentage by more than 5 %, and if the lower value does not satisfy the requirements of point 5.1, type-approval shall be refused.
- 5.3. Where the vertical position of the device influences the results obtained, the procedure described in points 4.1 to 4.4 must be repeated in the positions giving the highest and lowest percentages of water collected; the requirements of point 5.2 remain in force.

The requirement of point 5.1 remains in force in order to give the results of each test.

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# Changes and effects yet to be applied to the whole legislation item and associated provisions

- Signature words omitted by S.I. 2022/1273 reg. 63(8)
- Annex 2 Pt. 2 s. 1 point 000.7 words substituted by S.I. 2022/1273 reg. 63(10)(c)(ii)
- Art. 2(11) words substituted by S.I. 2022/1273 reg. 63(3)(a)
- Art. 2(12) words substituted by S.I. 2022/1273 reg. 63(3)(b)
- Art. 2(13) words substituted by S.I. 2022/1273 reg. 63(3)(c)
- Art. 2(15) words substituted by S.I. 2022/1273 reg. 63(3)(d)
- Art. 2(16) words substituted by S.I. 2022/1273 reg. 63(3)(e)