TECHNICAL REPORT

Exposure procedure for accelerated ageing by hot water

TR 012
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EUROPEAN ORGANISATION FOR TECHNICAL APPROVALS

Technical Report 012 revised Exposure procedure for accelerated ageing by hot water

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Foreword

EOTA Technical Reports are developed as supporting reference documents to European Technical Approval Guidelines and can also be applicable to a Common Understanding of Assessment Procedures, an EOTA Comprehension Document or an European Technical Approval, as far as reference is made therein.

EOTA Technical Reports go into detail in some aspects and express the common understanding of existing knowledge and experience of the EOTA bodies at a particular point in time.

Where knowledge and experience is developing, especially through approval work, such reports can be amended and supplemented.

When this happens, the effect of the changes upon the European Technical Approval Guidelines will be laid down in the relevant comprehension documents, unless the European Technical Approval Guideline is revised.

This EOTA Technical Report has been prepared by the EOTA Working Group 04.02/01 – "Liquid applied roof waterproofing Kits" and endorsed by EOTA.

1 Scope

This EOTA Technical Report specifies the exposure procedure for accelerated ageing by hot water and the method for conditioning test specimens of installed products of liquid applied roof waterproofing kits, in order to determine the possible effect of this exposure on various characteristics of the installed product, by comparative testing.

2 Principle

The conditioning of test specimens is performed by exposing the upper weathering surface of the test specimen to water at a defined temperature during a specified period of time.

3 Apparatus

3.1 Ventilated oven

Ventilated oven with temperature control in the range of 25 - 100°C to an accuracy of ± 2 °C.

3.2 Reservoir

Reservoir of a suitable size to contain the water.

3.3 Clamps

Clamps or other suitable means (e.g. adhesive and or sealant) to attach the reservoir to the test specimen.

3.4 Means to prevent evaporation

To reduce the rate of water loss.

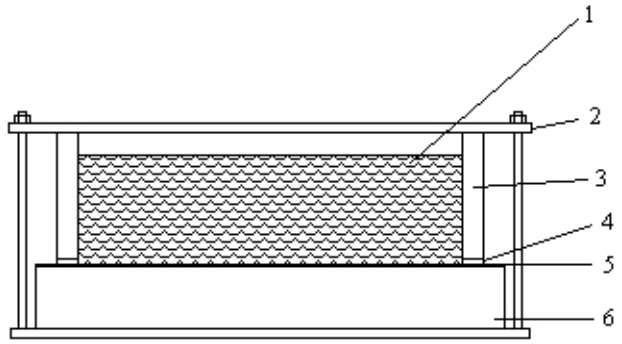

Figure 1 – Schematic diagram of apparatus
1 – water (anti-evaporation balls not shown); 2 – clamp; 3 –reservoir; 4 – sealant; 5 – liquid waterproofing system; 6 – substrate.

4 Test specimen

The test specimen is the installed products of the roof waterproofing kit, applied in accordance with the manufacturer's instructions to the appropriate substrate(s) having size of (300 + 50/0) mm x

(300 + 50/0) mm.

5 Procedure

5.1 Attach the reservoir to the test specimen by clamping or bonding use a silicon sealant to ensure a watertight seal to the test specimen.

Allow the sealant to set in accordance with the manufacturer's instructions.

5.2 Introduce water to a depth of 100 mm over the specimen and ensure that the water surface is covered with means to prevent evaporation.

5.3 Place the test specimen and attach reservoir into the oven at the required temperature.

5.4 Maintain the required temperature and the water level during the specified period of time.

5.5 At the end of the exposure period remove the test specimen from the oven, discharge the water and bring the specimen back to ambient temperature. Remove the reservoir from the test specimen and maintain the test specimen at ambient temperature for 24 hours before further testing.

6 Expression of results

6.1 Examine visually unexposed and exposed test specimens and record any occurred exposure effects.

6.2 Observe, compare and record the differences in appearance of the unexposed and exposed test specimens as regards their relevant characteristics.

7 Test report

The test report shall include the following information:

a. reference to this Technical Report;

b. the name of the testing laboratory;

c. date and period of exposure;

d. description of the installed product, including shape, dimensions and substrate(s);

e. type of exposure, temperature and period of time;

f. all visual observations;

g. results of evaluation of exposure effects;

h. all operating details, not specified in this Technical Report, as well as incidents likely to have influenced the process.