



EUROPEAN ASSESSMENT DOCUMENT

EAD 360005-00-0604

April 2016

CAVITY TRAYS

The reference title and language for this EAD is English. The applicable rules of copyright refer to the document elaborated in and published by EOTA.

This European Assessment Document (EAD) has been developed taking into account up-to-date technical and scientific knowledge at the time of issue and is published in accordance with the relevant provisions of Regulation (EU) No 305/2011 as a basis for the preparation and issuing of European Technical Assessments (ETA).

Contents

1	Scope of the EAD.....	4
1.1	Description of the construction product	4
1.2	Information on the intended use(s) of the construction product	5
1.2.1	Intended use.....	5
1.2.2	Working life/Durability.....	5
2	Essential characteristics and relevant assessment methods and criteria.....	6
2.1	Essential characteristics of the product	6
2.2	Methods and criteria for assessing the performance of the product in relation to essential characteristics of the product	6
2.2.1	Reaction to fire	6
2.2.2	Water tightness.....	6
2.2.3	Resistance to UVA ageing	6
2.2.4	Practical test for effectiveness of cavity trays installed in a test wall	7
3	Assessment and verification of constancy of performance	8
3.1	System(s) of assessment and verification of constancy of performance to be applied	8
3.2	Tasks of the manufacturer	8
4	REFERENCE DOCUMENTS	9

1 SCOPE OF THE EAD

1.1 Description of the construction product

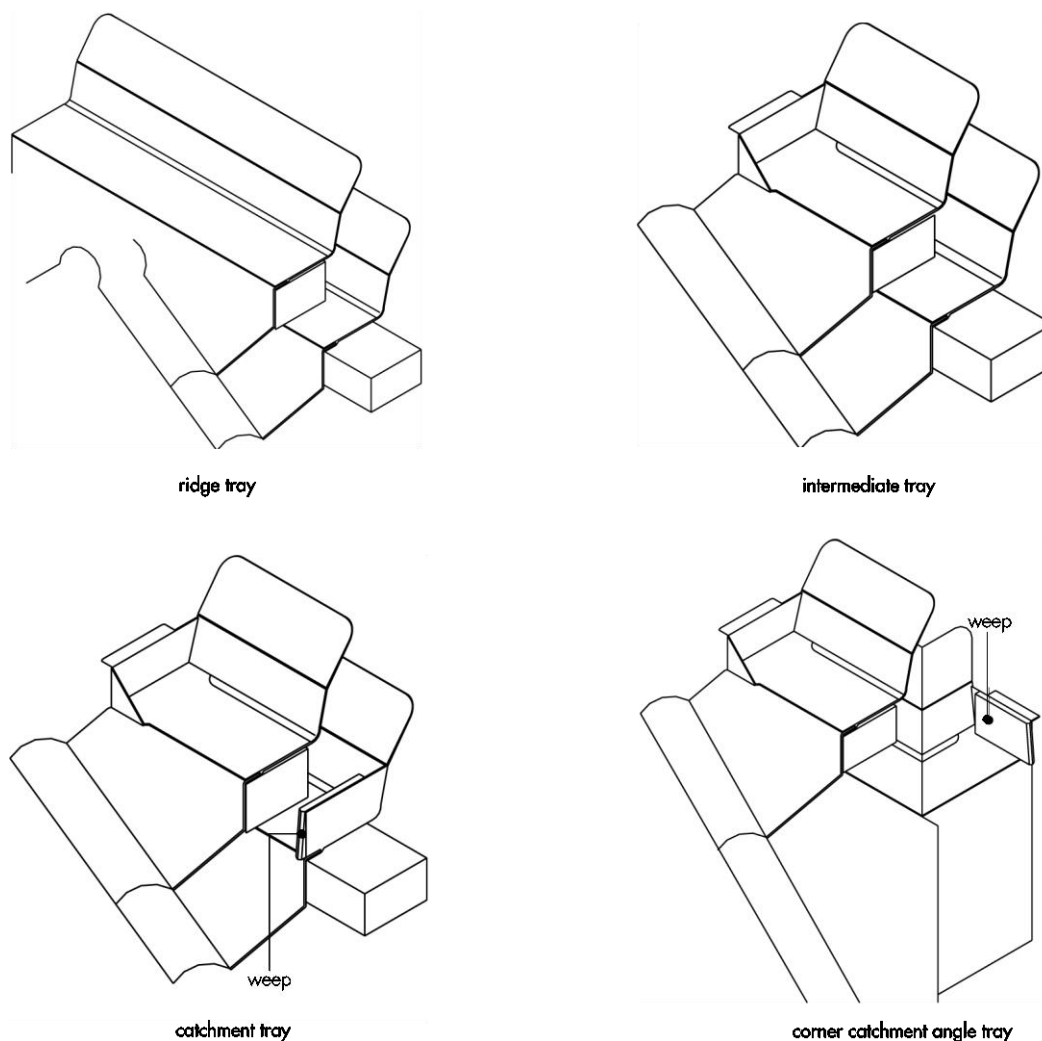
The products are polypropylene or polyethylene cavity trays designed to be incorporated into brick or block courses of the external walls of dwellings such that water running down the inside of the outer leaf of a cavity wall is intercepted by the trays and diverted via weep holes to the external face of the wall.

The trays may be supplied with integral lead flashings attached or plain for site installation of the flashing.

All trays include features that allow them to be joined together in a watertight manner.

See Figure 1 for an example of typical components in a system of overlapping pre-formed cavity trays:

Figure 1



The product is not covered by a harmonised European standard (hEN).

Concerning product packaging, transport, storage, maintenance, replacement and repair it is the responsibility of the manufacturer to undertake the appropriate measures and to advise his clients on the transport, storage, maintenance, replacement and repair of the product as he considers necessary.

It is assumed that the product will be installed according to the manufacturer's instructions or (in absence of such instructions) according to the usual practice of the building professionals.

Relevant manufacturer's stipulations having influence on the performance of the product covered by this European Assessment Document shall be considered for the determination of the performance and detailed in the ETA.

1.2 Information on the intended use(s) of the construction product

1.2.1 Intended use

To form a damp-proof course at the abutment of a cavity wall (in brick-brick, brick-block construction, or timber-frame with a brick cladding) with a pitched roof or a flat roof.

1.2.2 Working life/Durability

The assessment methods included or referred to in this EAD have been written based on the manufacturer's request to take into account a working life of the Cavity Trays for the intended use of 50 years when installed in the works (provided that the Cavity Tray is subject to appropriate installation (see 1.1)) These provisions are based upon the current state of the art and the available knowledge and experience.

When assessing the product the intended use as foreseen by the manufacturer shall be taken into account. The real working life may be, in normal use conditions, considerably longer without major degradation affecting the basic requirements for works¹.

The indications given as to the working life of the construction product cannot be interpreted as a guarantee neither given by the product manufacturer or his representative nor by EOTA when drafting this EAD nor by the Technical Assessment Body issuing an ETA based on this EAD, but are regarded only as a means for expressing the expected economically reasonable working life of the product.

¹ The real working life of a product incorporated in a specific works depends on the environmental conditions to which that works is subject, as well as on the particular conditions of the design, execution, use and maintenance of that works. Therefore, it cannot be excluded that in certain cases the real working life of the product may also be shorter than referred to above.

2 ESSENTIAL CHARACTERISTICS AND RELEVANT ASSESSMENT METHODS AND CRITERIA

2.1 Essential characteristics of the product

Table 1 shows how the performance of Cavity Trays is assessed in relation to the essential characteristics.

Table 1 Essential characteristics of the product and methods and criteria for assessing the performance of the product in relation to those essential characteristics

No	Essential characteristic	Assessment method	Type of expression of product performance (level, class, description)
Basic Works Requirement 2: Safety in case of fire			
1	Reaction to fire	See clause 2.2.1	Class
Basic Works Requirement 3: Hygiene, health and the environment			
3	Water tightness	See clause 2.2.2	Description
4	Resistance to UVA ageing	See clause 2.2.3	Description
5	Ability to collect water running down the inside of the outer leaf of a wall and discharge it effectively to the exterior	See clause 2.2.4	Description

2.2 Methods and criteria for assessing the performance of the product in relation to essential characteristics of the product

2.2.1 Reaction to fire

The product shall be tested, using the test methods relevant for the corresponding reaction to fire class, in order to be classified according to Commission Delegated Regulation (EU) 2016/364.

2.2.2 Water tightness

Five samples of the manufactured product shall be visually examined for defects which may lead to loss of water through the tray (such as pinholes or tears).

2.2.3 Resistance to UVA ageing

The testing is carried out on the cavity tray weep (which in service will be exposed at one end to the effects of sunlight) in accordance with EN ISO 4892-3: 2013 using UVA 340 lamps with a cycle of:

-4 hours UVA radiation at 50°C, followed by

-4 hours water condensation at 50°C.

The total test duration to be 2880 hours (120 days).

At the end of the test the sample is examined visually for signs of degradation. No major signs of degradation (i.e. cracking or crazing of the surface) should be present.

2.2.4 Practical test for effectiveness of cavity trays installed in a test wall

This is a practical test to demonstrate that the cavity trays can fulfil their primary aim of intercepting water flowing down the inner face of the outer leaf of brick/blockwork and diverting it to the outer face via installed weep holes.

The products are installed in a test wall and subjected to water spray at conditions designed to drive water through the bricks, and cracks in the mortaring to the inner face of the wall. The fact that water is progressing through the wall and entering the cavity trays should be verified by observation that water is being returned to the front face of the wall via installed weeps. The test should be carried out for a minimum of 24 hours. The external area below the installed trays should be protected from the wind-driven rain so that it can be observed whether any moisture is appearing from the inner face (i.e. water which has progressed past the cavity trays and is now travelling down the inner face and appearing on the external face as damp patches). Alternatively, if access is available to the inside face of the wall, then any water by-passing the cavity trays can be directly observed.

No water running down the inner leaf of the wall below the line of cavity trays should be observed, and no damp patches below the installed cavity trays are permitted.

3 ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE

3.1 System(s) of assessment and verification of constancy of performance to be applied

For the products covered by this EAD the applicable European legal act is: Decision 1999/90/EC

The system is: **3**

3.2 Tasks of the manufacturer

The cornerstones of the actions to be undertaken by the manufacturer of the product in the procedure of assessment and verification of constancy of performance are laid down in Table 2.

Table 2 Control plan for the manufacturer; cornerstones

No	Subject/type of control (<i>product, raw/constituent material, component</i> <i>- indicating characteristic concerned</i>)	Test or control method (<i>refer to 2.2 or 3.4</i>)	Criteria, if any	Minimum number of samples	Minimum frequency of control
Factory production control (FPC)					
1	Check incoming raw material	Paperwork check	Conformance with agreed specification	N/A	Every batch
2	Integrity of product	Visual check for defects in injection moulding	Should conform to standard product	Every sample	Every sample

4 REFERENCE DOCUMENTS

As far as no edition date is given in the list of standards thereafter, the standard in its current version at the time of issuing the European Technical Assessment, is of relevance.

EN ISO 4892-3	Plastics — Methods of exposure to laboratory light sources Part 3: Fluorescent UV lamps
---------------	--