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REPORT

Summary report – fire resistance according to NEN-EN 1366-3 of penetrations with the FP Wall Outlet

Report no.	2015-Efectis-R000389(E)
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CONTENTS

1. INTRODUCTION

Efectis Nederland has been commissioned by Den Braven located at Oosterhout to summarise the test results and assessments for penetrations where the FP Wall outlet has been applied for 120 minutes fire resistance. The current assessment is given on the basis of the European standard NEN-EN 1366-3:2005.

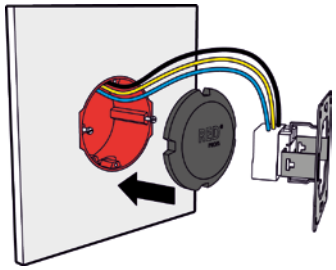

Figure 1.1 FP Wall outlet

The assessment is based on Efectis Nederland report 2008-Efectis-R0458[rev.2]

A summary of the report is given in Chapter 2. In Chapter 3 the conclusion is presented. Additional documentation for the purpose of supporting and clarifying the conclusions in Chapter 3 is provided in the appendix of this report. The documentation has been provided by Den Braven. Efectis Nederland has checked and confirmed the accuracy of the contents.

1.1 INFORMATION REGARDING REVISIONS

Version 0, April 2015.

2. TEST AND ASSESSMENT REPORTS

2.1 EFECTIS NEDERLAND TEST REPORT 2008-EFECTIS-R0458[REV.2]

This report describes the results of a fire test according NEN-EN 1366-3:2005 in conjunction with prEN 1366-3:2007 for an electrical wall socket provided with a FP Wall outlet in a flexible wall construction. For details see Appendix A. The pipe penetrations are reported separately.

The test specimen had the following characteristics:

- Built into a standard flexible wall according to NEN 1366-3:2005, metal frame 50 mm, both sides two gypsum plates (2 x 12.5 mm), stone wool insulation 50 mm, density 55 kg/m³.
- An installation opening, Ø 60 mm, was made in the wall to accommodate the electrical socket;
- Two electrical wall sockets were mounted directly opposite each other: one on the directly heated side and one on the not directly heated side.
- A FP Wall outlet was placed on the rear side of both wall sockets.

A summary of the results according NEN-EN 1366-3:2005 is given in the report:

Criterion	Time duration calculated from the start of heating during which the criterion according to NEN-EN 1366-3:2005 was fulfilled.
	NEN-EN 1366-3:2005
a) Integrity	120 minutes
b) Thermal Insulation	120 minutes

The classification according to EN 13501-2:2007 of the fire resistance of an electrical wall socket provided with a FP Wall outlet in a flexible wall construction, such as described in the classification report 2009-Efectis-R0298, is E120 and EI120.

3. CONCLUSION

This report, reference 2015-Efectis-R000389(E), has been compiled by Efectis Nederland and was commissioned by Den Braven. The report concerns a collection of the test results and assessments, as determined for the FP Wall outlet. The current assessment is given on the grounds of the European standard NEN-EN 1366-3:2005.

The assessment is based on the Efectis Nederland test report 2008-Efectis-R0458[rev.2].

Efectis Nederland has controlled the test and assessment results on the basis of the European standard NEN-EN 1366-3:2005. The conclusions based on these test results are given in the next sections of this report.

The documents have been provided by Den Braven. Efectis has checked and confirmed these documents.

3.1 120 MINUTES FIRE RESISTANCE

Under the following conditions, the fire resistance with regard to the separating function according to Appendix A of NEN-EN 1366-3:2005, is 120 minutes, on the basis of the EI-criteria for the following penetrations with the FP Wall outlet.

1) An FP Wall outlet is applied to the rear of the electrical wall socket.

2) The installation opening associated with the electrical wall socket has a maximum diameter of 60 mm.

3) The electrical wall sockets can be mounted in one of the following types of supporting construction:

- A wall construction made from stone-like material, with a minimum thickness of 100 mm.

- A flexible wall construction according to EN 1363-1:2012

    - The wall thickness can be increased, and more gypsum plates can be applied.
    - The flexible supporting construction can also be built from a wooden framework (width/depth ≥ 50 x 75 mm) with the same number of gypsum plates (2 x 12.5 mm). The electrical wall socket must not be placed at less than 100 mm from a post, and 100 mm insulation must be placed in the space in between.

  A fire resistance of at least 120 minutes must be shown for the supporting construction.

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APPENDIX A: FIGURES

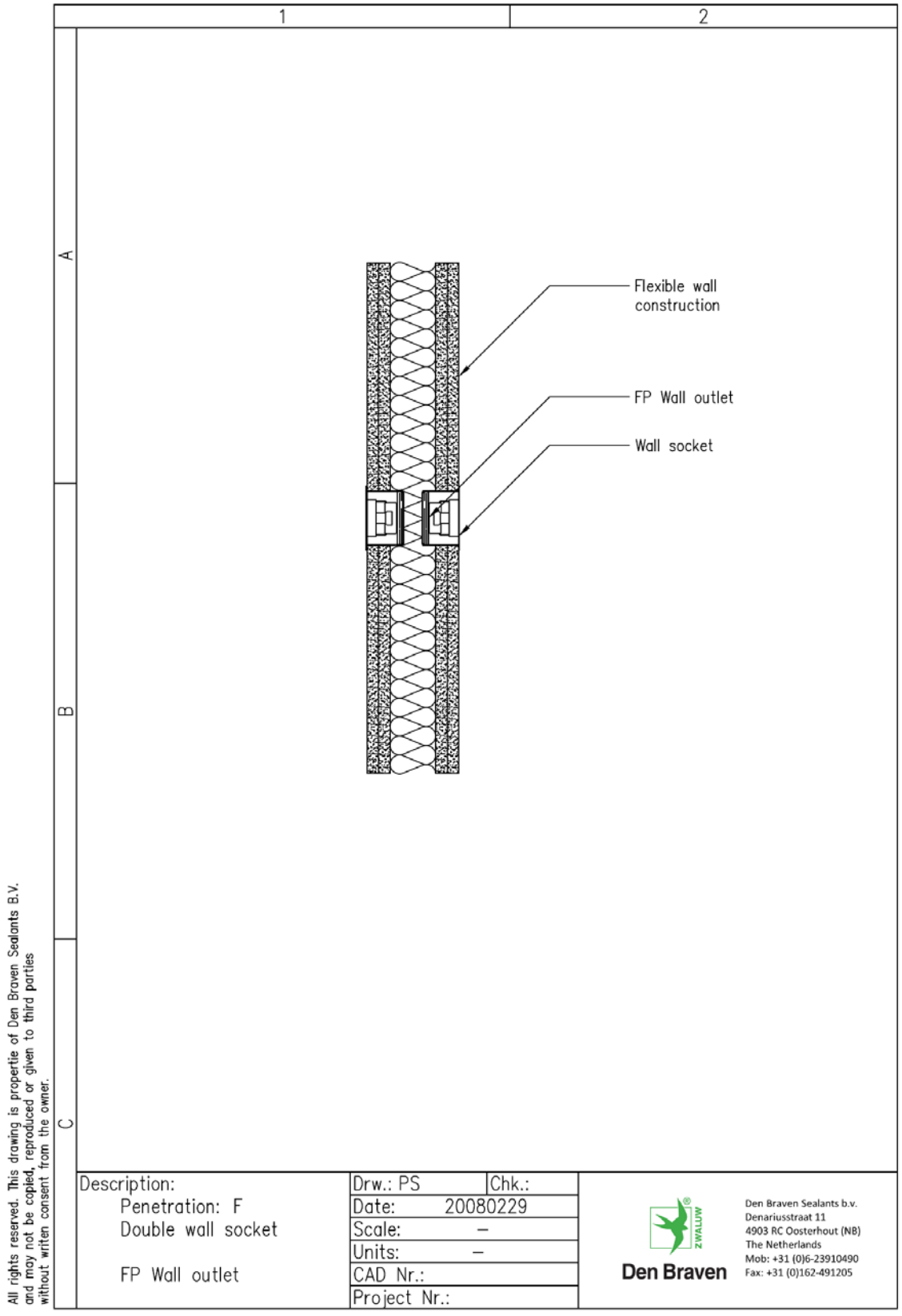

Figure A.1 Detail FP Wall outlet, based on report 2008-Efectis-R0458[Rev.2]