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<b>EWFA SHORT FORM REPORT</b>	<b>EWFA : SFC C91611b.3</b>	<b>Page 1 of 5</b>
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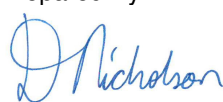

Report Sponsor	Report Issue Date	Product Name
Promat Australia Pty Ltd 1 Scotland Road Mile End SA 5031	28/05/2015	<b>UniCollars</b>

Introduction
<p>This short form Report presents the conclusions of EWFA report C91611b.2B-00 and 35284500 which assesses the likely fire resistance performance of various pipe penetrations through wall and floor constructions when protected with UniCollars, if tested in accordance with BS476: Part 20: 1987. The assessment C91611b.2B-00 was based on the following fire resistance tests; F91789, F91797a, F91810a, F91793, FSP0785, FSP0786, FSP0814, F91872, F91873, BWA 2352300.1 and BWA 2227801.1. EWFA 35284500 reviews the procedures and specification adopted for the original assessment and confirms that the assessed performance is considered valid with respect to BS476: Part 20: 1987.</p>

Assessment Report Reference	Report Issue Date	Report Validity Date	Test Standards/ Procedures
EWFA C91611b.2	21/06/2010	30/06/2015	BS476: Part 20: 1987
EWFA 35284500	28/05/2015	31/05/2020	BS476: Part 20: 1987

Supporting Data	Report Issue Date	Test Standards/ Procedures
F91789	25/02/2000	AS1530.4- 1997 and AS4072.1- 1992
F91797a	10/03/2000	AS1530.4- 1997 and AS4072.1- 1992
F91810a	18/04/2000	AS1530.4- 1997 and AS4072.1- 1992
F91793	5/10/2000	AS1530.4- 1997 and AS4072.1- 1992
FSP0785	18/09/2000	AS1530.4- 1997 and AS4072.1- 1992
FSP0786	19/09/2000	AS1530.4- 1997 and AS4072.1- 1992
FSP0814	15/02/2001	AS1530.4- 1997 and AS4072.1- 1992
F91872	06/07/2001	AS1530.4- 1997 and AS4072.1- 1992
F91873	06/07/2001	AS1530.4- 1997 and AS4072.1- 1992
BWA 2352300.1	24/07/2009	AS1530.4- 2005
BWA 2227801.1	03/04/2009	AS1530.4- 2005

Further details of the test constructions and method of assembly are provided in the test reports referenced above. The test reports provide full details of the test conditions and elapsed time to failure with respect to the relevant criteria together with any significant behaviour observed during the tests. This information has been used as the basis for preparing the assessments of the Fire Resistance Levels of the systems described in this short form Report.

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### Description of Test Specimens

There are two specimen configurations assessed in this report:

- Plastic pipe penetrations through a 2 hour fire-rated plasterboard partition protected with one UniCollar on each side and tested in accordance with BS476: Part 20: 1987.
- Plastic pipe penetrations through a concrete floor slab (of various thicknesses) protected with one UniCollar on the exposed face and tested in accordance with BS476: Part 20: 1987.

### Conclusions

The referenced assessment report expressed the opinion that if the plastic pipe configurations described above were subjected to a fire resistance test in accordance with BS476: Part 20: 1987 as appropriate, they would be likely to achieve the performances listed below:

#### For HDPE pipes penetrating a 2 hour fire rated plasterboard partition protected by one Unicollar on each side:

Nom. Pipe Size (mm)	Wall Thickness (mm)	Collar Type	Loadbearing Capacity	Integrity (min)	Insulation (min)
40	3.0	UC40	N/A	180	180
50	3.0	UC50	N/A	240	180
63	3.0	UC63	N/A	180	180
90	3.5	UC90	N/A	240	180
110*	5.0	UC110	N/A	120	120
200	7	UC200	N/A	120	90

\* The penetration was protected by only one UniCollar on the exposed side only.

#### For uPVC pipes penetrating a 2 hour fire rated plasterboard partition protected by one UniCollar on each side:

Nom. Pipe Size (mm)	Wall Thickness (mm)	Collar Type	Loadbearing Capacity	Integrity (min)	Insulation (min)
40	2.4	UC40	N/A	120	120
50	2.5	UC50	N/A	240	120
65	3.0	UC65	N/A	240	120
80	3.2	UC80	N/A	120	120
100	3.7	UC100	N/A	180	120
150	4.0	UC150	N/A	120	90

#### For HDPE pipes penetrating a 120mm thick concrete floor slab protected by one UniCollar on the exposed face:

Nom. Pipe Size (mm)	Wall Thickness (mm)	Collar Type	Loadbearing Capacity	Integrity (min)	Insulation (min)
40	3.5	UC40	N/A	240	180
56	3.5	UC56	N/A	240	180
63	3.0	UC63	N/A	240	180
75	4.0	UC75	N/A	240	180
90	3.5	UC90	N/A	240	180
110	5.0	UC110	N/A	240	180
125	4.9	UC125	N/A	120	90
150	6.2	UC150	N/A	120	90
150**	6.2	UC150	N/A	240	180
200	6.2	UC200	N/A	120	120
200*	6.2	UC200	N/A	180	120

\* The pipe was capped on both exposed and unexposed sides.

\*\* The penetration was protected by two UniCollars, both fitted on the exposed side.

**For uPVC pipes penetrating a 120mm thick concrete floor slab protected by one UniCollar on the exposed face:**

Nom. Pipe Size (mm)	Wall Thickness (mm)	Collar Type	Loadbearing Capacity	Integrity (min)	Insulation (min)
40	2.2	UC40	N/A	240 (120)*	240 (120)*
50	2.7	UC50	N/A	240 (120)*	180 (120)*
65	2.8	UC65	N/A	120 (120)*	120 (120)*
80	3.2	UC80	N/A	120 (120)*	120 (120)*
100	3.2	UC100	N/A	240 (120)*	180 (120)*
150	4.2	UC150	N/A	180	120

\* The integrity and insulation performance in bracket is for penetration with a pipe joiner fitting included within the collar.

**For PP pipes penetrating a 120mm thick concrete floor slab protected by one Unicollar on the exposed face:**

Nom. Pipe Size (mm)	Wall Thickness (mm)	Collar Type	Loadbearing Capacity	Integrity (min)	Insulation (min)
110	5.0	UC110	N/A	240	240

**For HDPE pipes penetrating a 150mm thick concrete floor slab protected by one UniCollar on the exposed face:**

Nom. Pipe Size (mm)	Wall Thickness (mm)	Collar Type	Loadbearing Capacity	Integrity (min)	Insulation (min)
40	3.5	UC40	N/A	240	180
56	3.5	UC56	N/A	240	180
63	3.0	UC63	N/A	240	180
75	4.0	UC75	N/A	240	180
90	3.5	UC90	N/A	240	180
110	5.0	UC110	N/A	240	180
125	4.9	UC125	N/A	120	90
150	6.2	UC150	N/A	120	90
150**	6.2	UC150	N/A	240	180
200	6.2	UC200	N/A	120	120
200*	6.2	UC200	N/A	180	120

\* The pipe was capped on both exposed and unexposed sides.

\*\* The penetration was protected by two UniCollars, both fitted on the exposed side.

**For uPVC pipes penetrating a 150mm thick concrete floor slab protected by one UniCollar on the exposed face:**

Nom. Pipe Size (mm)	Wall Thickness (mm)	Collar Type	Loadbearing Capacity	Integrity (min)	Insulation (min)
40	2.2	UC40	N/A	240 (120)*	240 (120)*
50	2.7	UC50	N/A	240 (120)*	180 (120)*
65	2.8	UC65	N/A	120 (120)*	120 (120)*
80	3.2	UC80	N/A	120 (120)*	120 (120)*
100	3.2	UC100	N/A	240 (120)*	180 (120)*
150	4.2	UC150	N/A	180	180

\* The integrity and insulation performance in bracket is for penetration with a pipe joiner fitting included within the collar.

**For HDPE pipes penetrating a 170mm thick concrete floor slab protected by one UniCollar on the exposed face:**

Nom. Pipe Size (mm)	Wall Thickness (mm)	Collar Type	Loadbearing Capacity	Integrity (min)	Insulation (min)
40	3.5	UC40	N/A	240	240
56	3.5	UC56	N/A	240	240
63	3.0	UC63	N/A	240	180
75	4.0	UC75	N/A	240	240
90	3.5	UC90	N/A	240	180
110	5.0	UC110	N/A	240	240
125	4.9	UC125	N/A	120	90
150	6.2	UC150	N/A	120	90
150**	6.2	UC150	N/A	240	180
200	6.2	UC200	N/A	120	120
200*	6.2	UC200	N/A	180	120

\* The pipe was capped on both exposed and unexposed sides.

\*\* The penetration was protected by two UniCollars, both fitted on the exposed side.

**For uPVC pipes penetrating a 170mm thick concrete floor slab protected by one UniCollar on the exposed face:**

Nom. Pipe Size (mm)	Wall Thickness (mm)	Collar Type	Loadbearing Capacity	Integrity (min)	Insulation (min)
40	2.2	UC40	N/A	240 (120)*	240 (120)*
50	2.7	UC50	N/A	240 (120)*	180 (120)*
65	2.8	UC65	N/A	120 (120)*	120 (120)*
80	3.2	UC80	N/A	120 (120)*	120 (120)*
100	3.2	UC100	N/A	240 (120)*	240 (120)*
150	4.2	UC150	N/A	180	180

\* The integrity and insulation performance in bracket is for penetration with a pipe joiner fitting included within the collar.

### Direct Field of Application

The results of this assessment apply to plastic pipes protected with Unicollars and penetrating plasterboard walls and concrete floors tested in accordance with BS476: Part 20: 1987.

### Requirements

This report details the methods of construction, test conditions and assessed results that would have been expected had the specific elements of construction described herein been tested in accordance with BS476: Part 20: 1987.

Any further variations with respect to size, constructional details, loads, stresses, edge or end conditions, other than those identified in this report, may invalidate the conclusions drawn in this report.

### Validity

This assessment report does not provide an endorsement by Exova Warringtonfire Aus Pty Ltd of the actual products supplied.

The conclusions of this assessment may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all conditions.

Because of the nature of fire testing, and the consequent difficulty in quantifying the uncertainty of measurement, it is not possible to provide a stated degree of accuracy. The inherent variability in test procedures, materials and methods of construction, and installation may lead to variations in performance between elements of similar construction.

The assessment can therefore only relate only to the actual prototype test specimens, testing conditions, and methodology described in the supporting data, and does not imply any performance abilities of constructions of subsequent manufacture.

This assessment is based on information and experience available at the time of preparation. The published procedures for the conduct of tests and the assessment of test results are the subject of constant review and improvement and it is recommended that this report be reviewed on or, before, the stated expiry date.

The information contained in this report shall not be used for the assessment of variations other than those stated in the conclusions above. The assessment is valid provided no modifications are made to the systems detailed in this report. All details of construction should be consistent with the requirements stated in the relevant test reports and all referenced documents.

### Authority

#### APPLICANT UNDERTAKINGS AND CONDITIONS OF USE

By using this report as evidence of compliance or performance the applicant(s) confirms that:

To their knowledge the component or element of structure, which is the subject of this assessment, has not been subjected to a fire test to the Standard against which this assessment is being made, and

They agree to withdraw this assessment from circulation should the component or element of structure be the subject of a fire test by a test authority in accordance with the Standard against which this assessment is being made and the results are not in agreement with this assessment, and They are not aware of any information that could adversely affect the conclusions of this assessment and if they subsequently become aware of any such information, agree to ask the assessing authority to withdraw the assessment.

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