

Assessment No
EWFA: SFC
C91611b.3

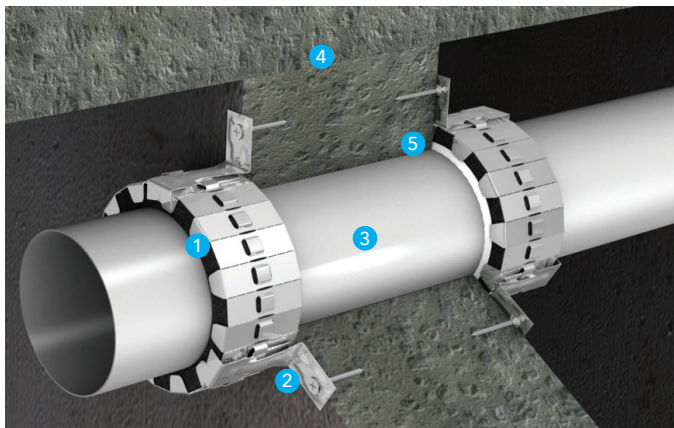
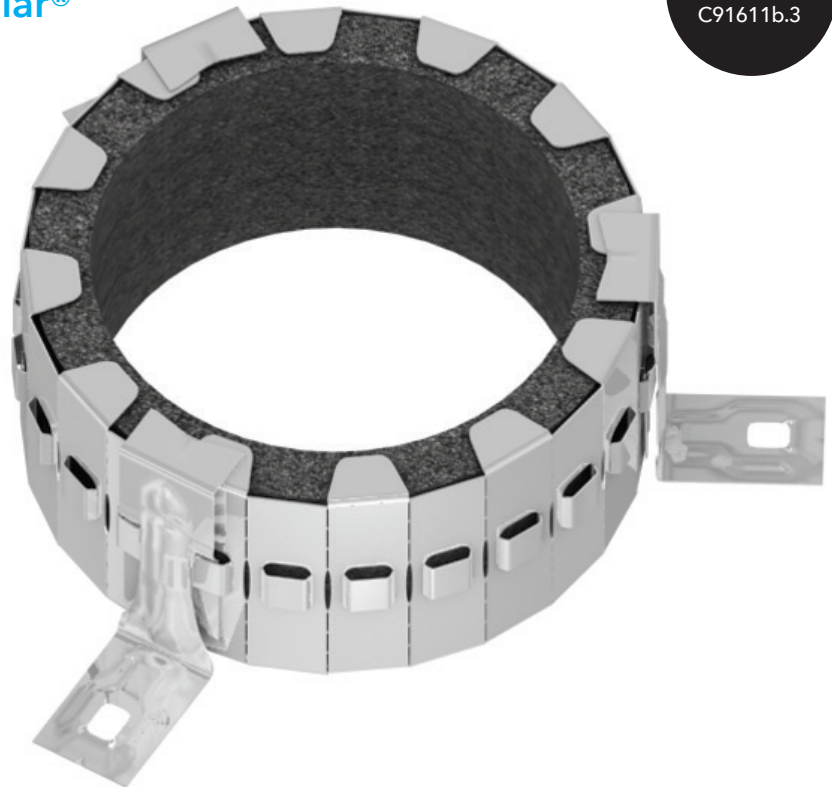
Promat PROMASEAL® UniCollar®

Introduction

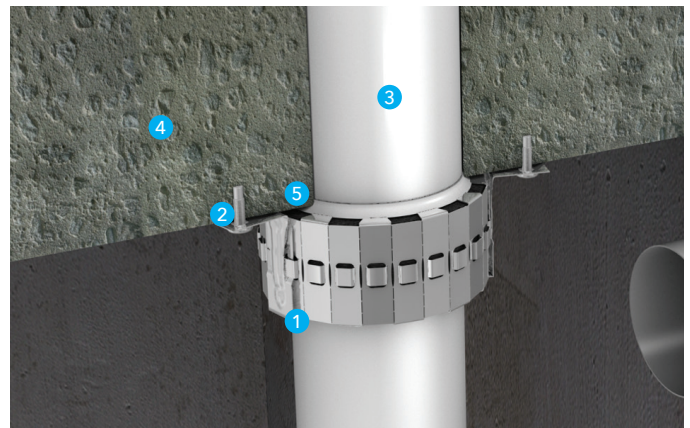
Promat PROMASEAL® UniCollar® is a patented method of protecting plastic pipes which pass through fire rated walls and floors. The system is supplied in a boxed continuous strip, 2250mm long, which is simply cut to length on site, and attached to the wall or floor using clips (supplied), and suitable screws, bolts and anchors, as necessary.

Application

Promat PROMASEAL® UniCollar® is used to maintain the fire resistance of walls or floors when they are penetrated by combustible pipework made from uPVC, HDPE, PP and many other materials.



Wall penetration



Floor penetration

Installation

Promat PROMASEAL® UniCollar® comes in a boxed strip. Each box of Promat PROMASEAL® UniCollar® comprises of a 2250mm strip (150 segments) plus fixings. Table 1 on page two shows the suggested length of strip required for each size pipe and how many casing segments to use.

The strip of Promat PROMASEAL® UniCollar® is then fixed into place around the plastic pipe with metal restraining brackets (supplied) which are bolted or screwed into the surrounding surface.

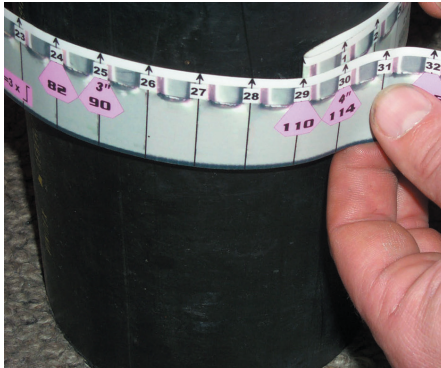
If fixing to drywall partition (minimum 120 minute partition specification) fix bracket to partition boards using coarse thread drywall screws (40 x 10mm).

Key to Illustrations

Up to 240 minutes fire rating, integrity in accordance with the criteria of BS 476: Part 20: 1987.

- ① Promat PROMASEAL® UniCollar®
- ② Attachment with suitable anchor fixing
- ③ Plastic piping, e.g. HDPE, uPVC or PP
- ④ Concrete wall, floor or fire rated partitions
- ⑤ Promat PROMASEAL® Sealant to act as a seal against the passage of cold smoke (not required for fire performance if the movement of cold smoke is not being considered)

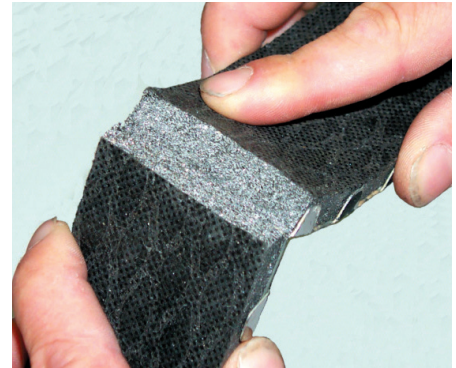
Promat PROMASEAL® UniCollar® installation



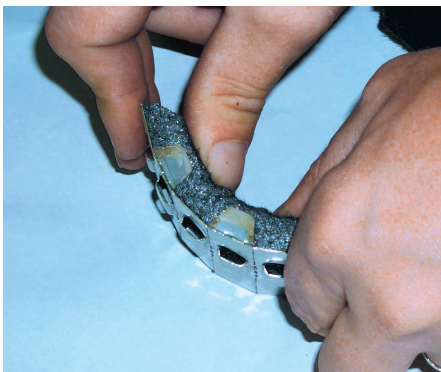
Step 1 - Measure collar circumference



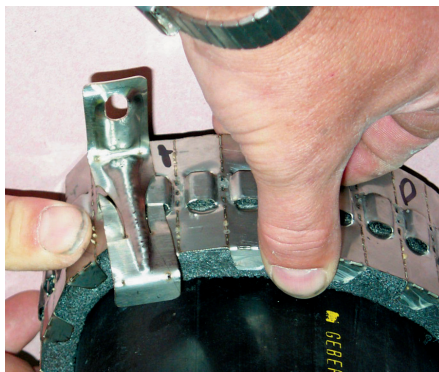
Step 2 - Cut collar to length



Step 3 - Snap collar



Step 4 - Shape collar appropriately



Step 5 - Fit collar around pipe



Step 6 - Secure collar in place

Table 1 - Suggested length of strip required for each size pipe and how many casing segments to use

Nominal pipe size (mm)	43	50	55	63	69	75	83	90	110	114	125	140	160	200
Casing segments	15	17	18	20	21	22	24	25	29	30	33	36	40	49
Approximate collars per box	10	8	8	7	7	6	6	6	5	5	4	4	3	3
No. of brackets per collar for floor applications	2	2	2	2	2	3	3	3	3	3	4	5	5	5
No. of brackets per collar for wall applications	2	2	2	2	2	3	3	3	3	3	3	5	5	5

Table 2 - 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

Table 3 - 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

Table 4 - 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.

Table 5 - 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.

Table 6 - 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

Table 7 - 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.

Table 8 - 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.

Table 9 - 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.

Table 10 - 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.