

Promat



PROMASTOP® UniCollar®
Latest Generation of Fire Collar for Plastic Pipes



Introduction

PROMASTOP® UniCollar® is a unique method of protecting plastic pipes which pass through fire rated walls and floors. The system is supplied in continuous strip form which is cut to length and attached to the element using ready-made clips. These clips fit into the pre-punched slots on the strip.

The intumescent activating layer is already attached to the metal band and requires no additional fixing. This whole patented system is packaged in single-ordered box for convenience and lower inventory cost.

Advantages

- Unique patented cut-to-length strip
- Single-ordered components: strip, brackets, fixings
- Easy-to-use dispenser
- "One size fits all" concept
- Tested with many types of plastic
- Strip moulded with intumescent
- Lower stock inventory cost

Fire Performance

PROMASTOP® UniCollar® has been extensively tested in several countries to meet both local and ISO testing regimes. Achieving Fire Resistance Level (FRL) up to 4 hours in floors and walls in a variety of plastic pipes for which most countries requirement will be met.

Pipe Sizes

PROMASTOP® UniCollar® is packed in a box, which contains 2250mm length of collar or 150 segments. The box has installation details (in graphic form) on one face.

The collar is designed so that it can be cut and snapped in segments of 15mm. One box is the equivalent of 5 x 110mm OD collars. Refer to the chart on the right for a guide as to the approximate number of collar sizes per strip.

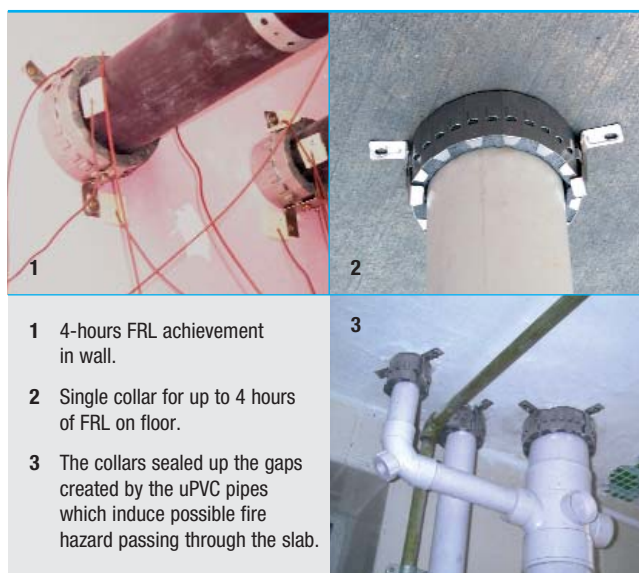
The chart on the right shows the suggested length of strip required for each size pipe and how many brackets to use.



Function

PROMASTOP® UniCollar® is the latest generation of fire collars designed to protect uPVC, HDPE, PP and other plastic pipes which pass through fire rated elements of building construction.

The system uses well tested Grafitex intumescent technology to effectively block off openings formed when plastic burns in a fire, to leave a solid barrier to maintain the compartment.



- 1 4-hours FRL achievement in wall.
- 2 Single collar for up to 4 hours of FRL on floor.
- 3 The collars sealed up the gaps created by the uPVC pipes which induce possible fire hazard passing through the slab.

Guide of Collar Sizes

The chart below shows the suggested length of strip required for each size pipe and how many brackets to use. At the time of publication test data is available for pipe sizes up to 200mm to some standards. Please contact your local Promat distributor for further details or visit www.firecollar.com.

Nominal pipe size (mm)	43	50	55	—	63	69	75	83
(inches)	—	1.5	—	2	—	—	2.5	—
Casing segments	15	17	18	19	20	21	22	24
Approx. collars per box	10	8.5	8	7.5	7.5	7	6.5	6

Nominal pipe size (mm)	90	110	114	125	140	160	—	200
(inches)	3	—	4	—	5	—	6	—
Casing segments	25	29	30	33	36	40	42	49
Approx. collars per box	6	5	5	4.5	4	3.75	3.5	3

Pipe Types

PROMASTOP® UniCollar® has been tested on uPVC, HDPE, PP and other pipes from a variety of suppliers. Individual types of plastic behave differently when exposed to fire and accordingly, many tests are required to satisfy these performance variations.

By using the patented continuous strip technology, the variation in the outer diameter of the different pipe types has also been overcome.

Installation

To be read in conjunction with graphics on the packaging and/or the provided tape.

Removing the casing and accessories from the box

The box contains the fixings and accessories required to install the collar. Open the box at the position clearly marked with an arrow (⇒). Remove the box of accessories. The end of the collar can now be pulled and the strip will uncoil. Ensure the soft Graftex faces up. The collar strip has snapping perforations at 15mm centres.

NOTE: Only pull out enough strip for the collar length required. E.g. approx. 600mm of strip is ample to easily cut a 110mm collar.

Cutting and snapping the strip

Identify the outside diameter of the pipe that is to have the collar applied to. On the box is a table, which gives the number of segments for each size pipe and the length of strip required. Either count the number of (15mm) segments required or measure the strip. Alternatively, a tape is provided which has each size pipe marked on one face at the correct number of segments and directions on the other face. Hold the tape on to the strip and match the end of the tape to the end of the strip. Cut through the Graftex at the appropriate position e.g. for a 110mm OD pipe, cut at segment marked 29.

Hold the strip with a finger and thumb on each side of the cut and as close to the cut as possible, and fold in a downward direction as far as possible. Repeat this folding until the steel snaps.

Fixing the collar

The ends of the Graftex, once cut, will be square. To make it easy to fix, cut these square ends away at a slight angle. Shape the strip to the approximate diameter of the pipe. If the pipe is small (e.g. under 75mm) pay extra attention to the ends of the strip to ensure they have been shaped correctly. Push one of the prongs of a bracket through the notch at one end of the strip. Fold the strip around the pipe and push the other prong through the notch on the other end of the strip. (The bracket can be gently hammered in to position if pushing is difficult). Attach the bracket to the wall or floor as described below and shown on the box drawings. Fix the other bracket(s) as required. Refer to the chart on page 2 or on the packaging.

If it is difficult to position the first bracket due to an obstruction, locate the bracket where convenient to secure the collar. Ensure the correct number of brackets are always used and the 2 ends of the strip always have a connecting bracket.

Floors

The unique, patented PROMASTOP® UniCollar® has been tested for up to 4 hours with pipes up to 200mm diameter, bolted to soffit of floor slab (with a similar fire rating or the same of greater thickness) using the 20mm x 5mm steel anchors provided, through the holes in the brackets provided. The fire rating achieved depends upon the size and type of pipe. **For any fire ratings in excess of 2 hours, check with Promat.** Always use the recommended number of fixing brackets for the size collar being used (refer to the chart on page 2 or on the packaging). The concrete must be in a condition that will ensure the anchors hold securely. Larger steel fixings may be used if deemed appropriate. Back fill any gap between the pipe and concrete greater than 8mm with PROMASEAL® Mortar or commercial grade mortar mix. PROMASEAL® Acrylic Sealant may be applied around the pipe on the topside of the floor slab if a water seal is required. If there is a possibility of pipe movement occurring that will cause cracks in the seal between the pipe and mortar mix (if used), it may be advisable to seal the pipe with PROMASEAL® Acrylic Sealant to prevent cold smoke egress. This however is not required for the fire rating to be achieved. If the gap between the pipe and slab is less than 8mm, apply a bead of PROMASEAL® Acrylic Sealant approx. 8mm deep in to the gap at the soffit.

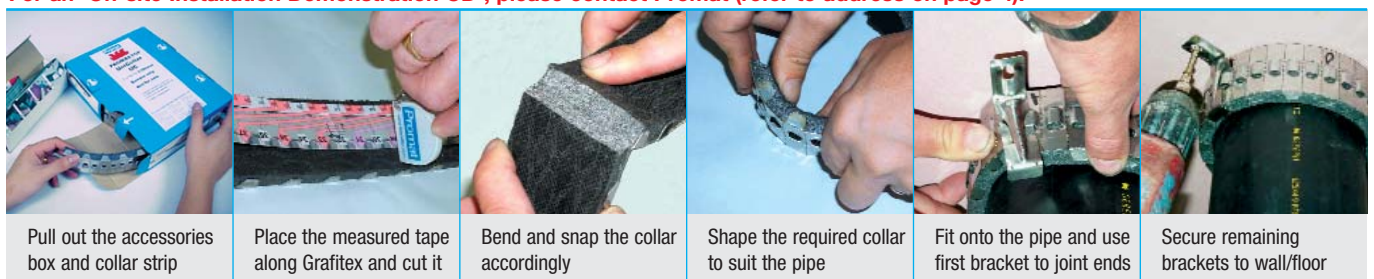
Walls

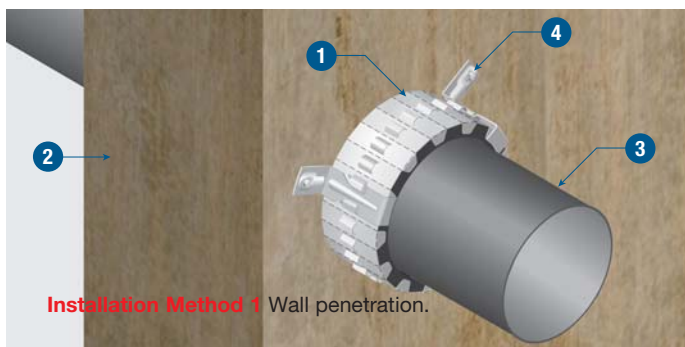
The unique, patented PROMASTOP® UniCollar® has been tested for up to 4 hours with pipes up to 200mm diameter, fixed to a wall (with a similar fire rating and the same of greater thickness). The fire rating achieved depends upon the size and type of pipe. **For any fire ratings in excess of 2 hours, check with Promat.** Always use the recommended number of fixing brackets for the size collar being used (refer to the chart on page 2 or on the packaging). For framed walls, use the 40mm x 10 laminating screws provided. For masonry walls, use the 20mm x 5mm steel anchors provided. The wall or floor must be in a condition that will ensure the anchors hold securely. Larger steel fixings may be used if deemed appropriate. Ensure the annular gap between the wall and pipe is minimal and seal this gap with a bead of PROMASEAL® Acrylic Sealant. Attach a collar to both faces of the wall. Fire tests were conducted with 2 brackets on pipes 69mm and under. For framed walls, 3 brackets are recommended if framing studs are not available to screw in to.

Using off cut strips

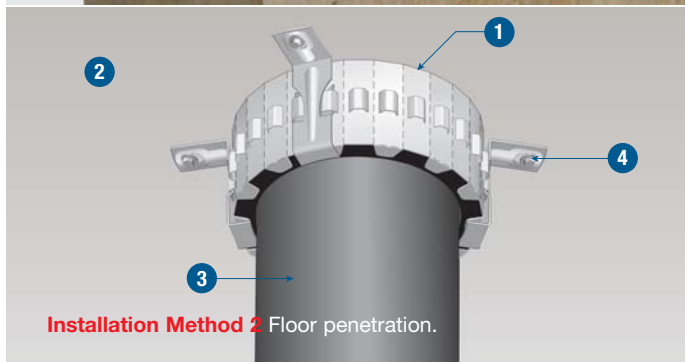
Off cuts from the strip may be used so long as they are attached to the main collar with additional brackets.

For an "On-site Installation Demonstration CD", please contact Promat (refer to address on page 4).

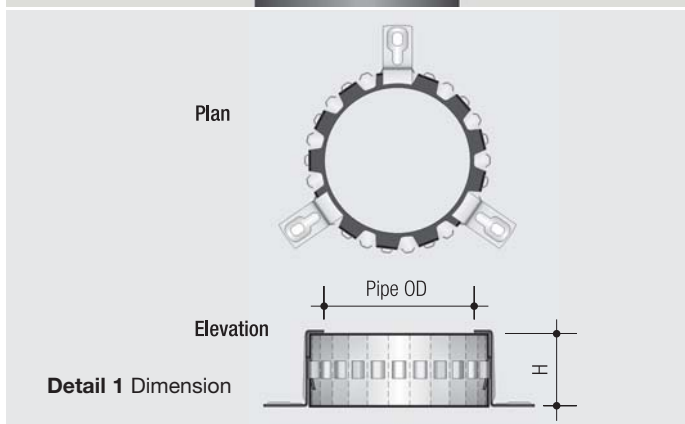




Installation Method 1 Wall penetration.



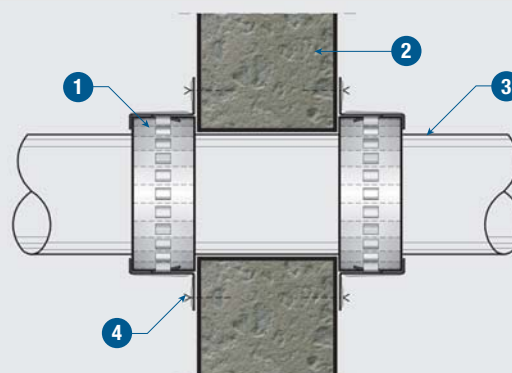
Installation Method 2 Floor penetration.



TECHNICAL DATA

Up to 4 hours fire rating, integrity and insulation in accordance with the criteria of BS 476: Part 20, AS 1530: Part 4 and prEN 1366: Part 3: 1993.

- 1 PROMASTOP® UniCollar®
- 2 Concrete wall or floor
- 3 Plastic piping e.g. Polyethylene PE, Polyvinylchloride PVC
- 4 Attachment with suitable anchor
i.e. Steel expanding fasteners or laminating screws



Detail 2 Wall penetration

Specification

All plastic pipes which pass through fire rated elements are to be protected using PROMASTOP® UniCollar® to meet Fire Resistance Level (FRL) of -/xxx/xxx. All installation methods to be in accordance with the manufacturer's printed instructions and duly certified upon completion and installation to the satisfaction of the building authority.

Important Notes

Promat product data sheets and health and safety data sheets are regularly reviewed and are available on request. The successful use of this product is dependent on a number of factors. As the information contained in this literature can only be of a general nature, it is advisable to consult our technical department if there is any doubt about the correct use of this product in a particular application. Our technical representatives and advisors are available to provide further technical and commercial assistance.

PROMASTOP® UniCollar® is manufactured under a quality management system certified in accordance with ISO 9001: 2000 Certification and it has passed the site audit of ISO 14001 and in accordance with the environmental standards of ISO 14001. www.firecollar.com

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