



### FR COLLAR

#### GENERAL PRODUCT DESCRIPTION

GRAFT® FR COLLAR is designed to maintain the fire resistance of fire rated walls and floors where these are breached by continuous plastic pipes, and may be used in gypsum, masonry and concrete walls and floors.

Each pipe collar consists of a white coated circular steel shell that splits in two to fit around the service penetrations by means of a simple 'slide-lock' system.

The steel shell contains a graphite based reactive material which reacts when exposed to heat closing the openings left by the softening plastic pipe in fire.

#### PROPERTIES

- New patented fast expanding graphite material
- For pipe sizes from smallest pipes available to Ø315 mm with a wide range of pipe wall thicknesses
- Collars comes in two different heights for different fire classifications to maximize cost efficiency
- Smaller pipes can be fitted within larger collars with the benefit of accommodating pipes that are at an angle or if the opening around the pipe is too large
- Fire classifications up to 240 minutes for both integrity and insulation
- Certified for PVC-U, PVC-C, PE, LDPE, MDPE, HDPE, ABS, SAN+ PVC and PP pipes
- Tested and certified for U/U pipe end applications
- Classified for fire sealing in all types of constructions
- Excellent sound insulation
- No emissions - environmentally and user friendly
- Simple to install using widely available standard screws
- Unlimited storage time (under correct conditions)
- 30 years working life guarantee

#### SOUND INSULATION

| DESCRIPTION                             | SOUND REDUCTION |
|---|-----------------|
| Collars installed as described in walls | 58 dB RW        |

The sound insulation value is only valid for the collar/pipe and not for other elements in the building construction.

The sound insulation has been tested by the accredited laboratory Exova BM Trada in Great Britain according to EN ISO 10140-2. Test report is available upon request.



#### PIPE END CONFIGURATIONS

When testing pipes, one can choose not to cap (or close) the pipe, or cap the pipe inside the furnace, or outside the furnace, or on both sides. The configuration chosen depends on the intended application of the pipe and/or the installation environment. The code defining if a pipe is capped is stated after the fire classification. For instance, EI 60 C/U which means the pipe was capped inside the furnace, and uncapped outside the furnace. The test configuration defines the approvals possible.

Our suggestions for engineering judgements are:

| INTENDED USE OF PIPE  | PIPE END CONDITIONS |     |
|---|---------------------|-----|
| Rainwater pipe, plastic   | At roof             | C/U |
|   | Further below       | C/U |
| Drainage or sewage pipe, plastic                                | At drainage         | C/U |
|   | Further below       | C/U |
| Pipes in closed circuits (water, gas, vacuum systems, el. etc.) | C/U                 |     |
| Pipes with open ends and at least 50cm pipe on both sides       | C/U                 |     |

#### TECHNICAL DATA

|                                    |  |
|------------------------------------|--|
| Technical Approval                 | ETAG 026-2   |
| Durability according to ETAG 026-2 | Z2 intended for use in internal conditions with humidity classes other than Z1, excluding temperatures below 0 °C. |
| Shell                              | Powder coated 1mm steel  |
| Conditioning procedure             | EN 13238:2010  |
| Expansion ratio                    | 17:1   |
| Expansion pressure                 | 65.4 N   |
| Colour                             | White shell with anthracite inlay  |
| Graphite weight                    | 1.4 kg/m <sup>2</sup> per mm thickness   |
| Graphite density                   | 1409 kg/m <sup>3</sup>   |
| Normal expansion time              | Less than 2 minutes  |
| Minimum expansion Temp             | 105 °C   |
| Storage                            | Store in temperatures between 5 °C & 30 °C   |
| Life                               | Under normal conditions; 30 years +  |

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