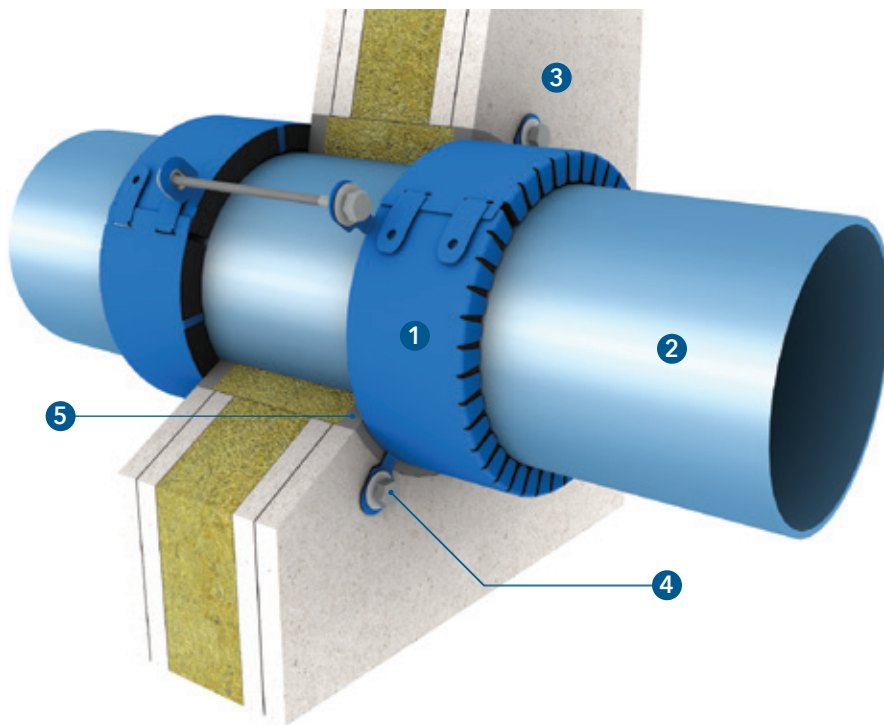


PROMASEAL® COLLAR



LEGEND

1. PROMASEAL® COLLAR
2. Combustible pipes
3. Supporting construction
4. Suitable fixing
5. PROMASEAL® Intumescent Acrylic Sealant

APPROVAL

UL-EU-01103-CPR



GENERAL DESCRIPTION

PROMASEAL® COLLARS are designed and tested to seal service penetration apertures containing plastic pipes. They are developed to provide a high volume expansion and pressure seal during a fire. The PROMASEAL® COLLAR offers EI 120 (walls) and EI 240 (floors) tested to EN1366-3, the maximum diameter available being 250mm.

PROMASEAL® COLLAR includes an intumescent component incorporated into a mild steel case to close any gaps and to provide a closure of combustible pipes when heated, to prevent the passage of fire.

FIELDS OF APPLICATION

Penetration seals in flexible/rigid walls, in rigid floor constructions and in PROMASEAL® Fire Barrier seals.¹

Penetration seals around non-metallic pipes.

INSTALLATION

- Ensure that the aperture and services in question have been tested with PROMASEAL® COLLAR and the site conditions are within the application specification. Services to be rigidly supported maximum 400mm from the seal on both sides of the wall and floor
- All services and apertures need to be clean and clear of all dust and loose particles. The aperture temperature needs to be at +5 deg C or above at time of installation.
- An annular space (max 10mm annular) needs to be present around the service to apply sufficient installation depth of PROMASEAL® Intumescent Acrylic Sealant.
- Upon installation make sure that the annular gap around the pipe is filled with the PROMASEAL® Intumescent Acrylic Sealant.
- Install the PROMASEAL® COLLAR around the pipe and fix the collar to the wall or floor with the recommended fixings.

PIPE DIAMETER

Stock sizes: 55mm, 82mm, 110mm, 125mm, 160mm

(Other sizes may be available to order, depending on quantity)

PLASTIC TYPES

PVC, PE, PP

FIRE RESISTANCE

EI 120 - Rigid, flexible walls
EI 240 - Rigid floor (underside)

EXPANSION RATE

20:1

EXPANSION PRESSURE N/mm²

1.30

WORKING TEMPERATURE

-20°C to +120°C

DURABILITY CLASSIFICATION:

Suitable for use in conditions exposed to weather

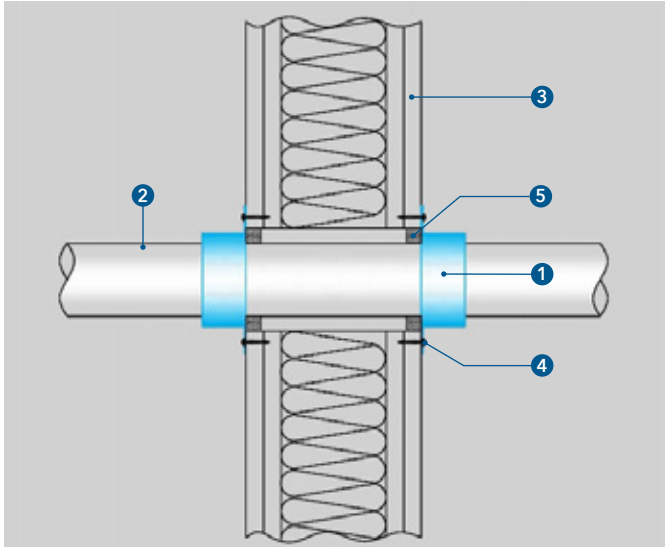
APPEARANCE

Blue coated steel - 3 fixing tabs

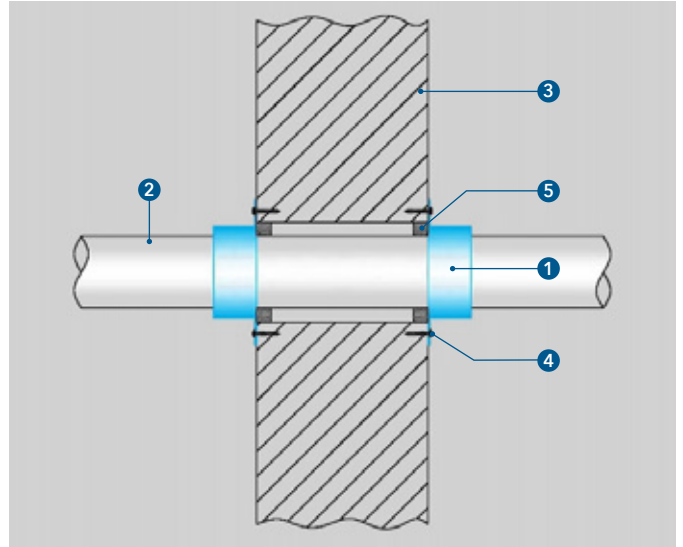
1. See PROMASEAL® Fire Barrier Data Sheet (EN) for further information.

AUTHORITY: UL-EU CERTIFICATION (APPROVAL UL-EU-01103-CPR)

Detail A - Combustible pipe penetrating seal in flexible wall



Detail B - Combustible pipe penetrating seal in rigid wall



FIXING DETAIL

- **Rigid Floors:**
Three no. 60mm x M6 Expanding Anchors
- **Rigid Walls:**
Three no. 70mm x M4 Wood Screws
- **Flexible Walls:**
Three no. 65mm x M6 Spider Fixings
- **Rigid Wall and Floors:**
Three no. 35mm x M8 Tap in Fixings
- **Fire Barrier installation:¹**
Three no. 80mm Pig tails.

PACKAGING

PROMASEAL® COLLARS are supplied in an assembled form, without fixings. The collar is wrapped around the pipe at the soffit or both faces of walls, depending on application.

STORAGE REQUIREMENTS

Store in cool and dry conditions.

SAFETY INSTRUCTIONS

Please refer to the safety data sheet for additional advice.

SYSTEM ADVANTAGES / CUSTOMER BENEFIT

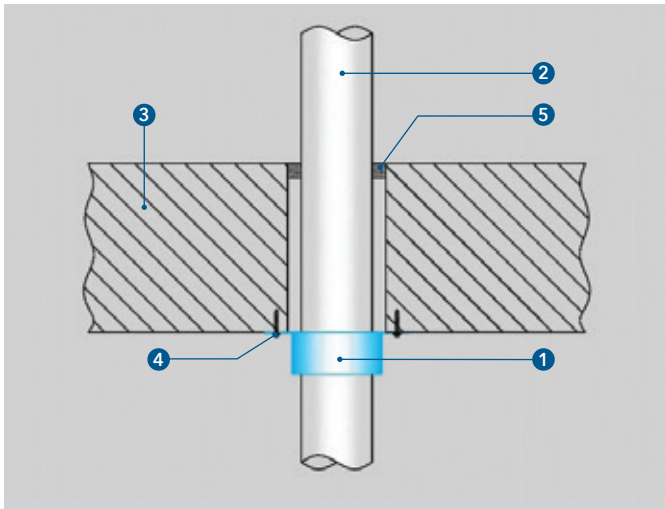
- Fire resistance testing in flexible/ rigid walls, rigid floors and PROMASEAL® Fire Barrier seals¹
- Halogen free, contains no asbestos, ceramic fibre and is environmentally friendly
- Allows thermal and mechanical movement of pipe
- Not effected by fungus, vermin, rodents or moisture
- Ease of fixing to suit location - 5 fixing types available
- Conditioned to Type X: -20°C to +70°C with accordance with EOTR 024 and ETAG 026
- Can be used with Plastic Pipes – PVC, PP and PE
- Ultra thin design of 30 or 40mm ensures the collars can be installed in the tightest of locations.

Detail A/B - Combustible pipe in flexible wall and rigid wall

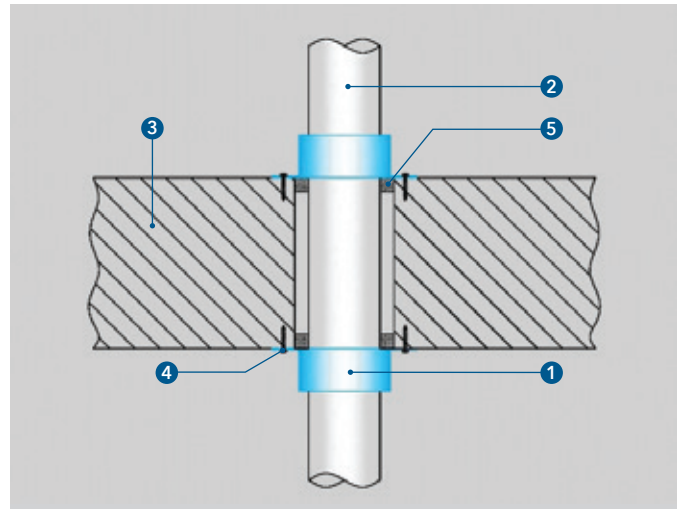
Description	Technical specification
Wall thickness	≥100mm
Minimum seal depth	≥ 10mm
Sealant position	Both sides
Collar position	Both sides

1. See PROMASEAL® Fire Barrier Data Sheet (EN) for further information.

Detail C - Combustible pipe penetrating seal in rigid floor



Detail D - Combustible pipe penetrating seal in rigid floor



Detail C - Combustible pipe in rigid floor

Description	Technical specification
Floor thickness	≥150mm
Minimum seal depth	≥ 10mm
Sealant position	Upper face of floor
Collar position	Soffit

Detail D - Combustible pipe in rigid floor

Description	Technical specification
Floor thickness	≥150mm
Minimum seal depth	≥ 10mm
Sealant position	Both sides
Collar position	Both sides

TABLE 1: OVERVIEW OF COMBUSTIBLE PIPE INSTALLATION, DIMENSIONS AND CLASSIFICATION FOR FLEXIBLE WALL AND RIGID WALL (DETAIL A/B). WALL THICKNESS ≥100MM: PROMASEAL® COLLAR INSTALLED ON BOTH SIDES OF WALL

Pipe	Reference	Inlay W x H (mm)	Fire resistance (mins)	
			E	EI
32mm Ø PVC with 1.8mm wall thickness	32mm PROMASEAL® COLLAR	30 x 4	120 U/C	120 U/C
40mm Ø PVC with 1.8mm wall thickness	40mm PROMASEAL® COLLAR			
50mm Ø PVC with 1.8mm wall thickness	50mm PROMASEAL® COLLAR			
55mm Ø PVC with 2.3-3mm wall thickness	55mm PROMASEAL® COLLAR	30 x 6		
63mm Ø PVC with 2.3-3mm wall thickness	63mm PROMASEAL® COLLAR			
75mm Ø PVC with 3.1-4.8mm wall thickness	75mm PROMASEAL® COLLAR	30 x 8		
82mm Ø PVC with 3.1-4.8mm wall thickness	82mm PROMASEAL® COLLAR			
90mm Ø PVC with 4.2-7.4mm wall thickness	90mm PROMASEAL® COLLAR	30 x 10		
100mm Ø PVC with 4.2-7.4mm wall thickness	100mm PROMASEAL® COLLAR			
110mm Ø PVC with 4.2-7.4mm wall thickness	110mm PROMASEAL® COLLAR			

Continued on next page



TABLE 1: OVERVIEW OF COMBUSTIBLE PIPE INSTALLATION, DIMENSIONS AND CLASSIFICATION FOR FLEXIBLE WALL AND RIGID WALL (DETAIL A/B). WALL THICKNESS ≥100MM: PROMASEAL® COLLAR INSTALLED ON BOTH SIDES OF WALL

Pipe	Reference	Inlay W x H (mm)	Fire resistance (mins)	
			E	EI
125mm Ø PVC with 6.0mm wall thickness	125mm PROMASEAL® COLLAR	40 x 12	120 U/C	120 U/C
140mm Ø PVC with 6.1-7.5mm wall thickness	140mm PROMASEAL® COLLAR	40 x 16		
160mm Ø PVC with 6.2-9.5mm wall thickness	160mm PROMASEAL® COLLAR	40 x 18		
32mm Ø PP with 2.9mm wall thickness	32mm PROMASEAL® COLLAR	30 x 4		
40mm Ø PP with 2.9mm wall thickness	40mm PROMASEAL® COLLAR			
50mm Ø PP with 2.9mm wall thickness	50mm PROMASEAL® COLLAR			
55mm Ø PP with 2.9-4.4mm wall thickness	55mm PROMASEAL® COLLAR	30 x 6		
63mm Ø PP with 2.9-4.4mm wall thickness	63mm PROMASEAL® COLLAR			
75mm Ø PP with 2.8-6.7mm wall thickness	75mm PROMASEAL® COLLAR	30 x 8		
82mm Ø PP with 2.8-6.7mm wall thickness	82mm PROMASEAL® COLLAR			
90mm Ø PP with 2.7-10mm wall thickness	90mm PROMASEAL® COLLAR	30 x 10		
100mm Ø PP with 2.7-10mm wall thickness	100mm PROMASEAL® COLLAR			
110mm Ø PP with 2.7-10mm wall thickness	110mm PROMASEAL® COLLAR			
125mm Ø PP with 3.1mm wall thickness	125mm PROMASEAL® COLLAR	40 x 12		
140mm Ø PP with 3.5-8.0mm wall thickness	140mm PROMASEAL® COLLAR	40 x 16		
160mm Ø PP with 4.0-14.5mm wall thickness	160mm PROMASEAL® COLLAR	40 x 18		
32mm Ø PE with 2.9mm wall thickness	32mm PROMASEAL® COLLAR	30 x 4		
40mm Ø PE with 2.9mm wall thickness	40mm PROMASEAL® COLLAR			
50mm Ø PE with 2.9mm wall thickness	50mm PROMASEAL® COLLAR			
55mm Ø PE with 2.9-4.4mm wall thickness	55mm PROMASEAL® COLLAR	30 x 6		
63mm Ø PE with 2.9-4.4mm wall thickness	63mm PROMASEAL® COLLAR			
75mm Ø PE with 2.8-6.7mm wall thickness	75mm PROMASEAL® COLLAR	30 x 8		
82mm Ø PE with 2.8-6.7mm wall thickness	82mm PROMASEAL® COLLAR			
90mm Ø PE with 2.7-10mm wall thickness	90mm PROMASEAL® COLLAR	30 x 10		
100mm Ø PE with 2.7-10mm wall thickness	100mm PROMASEAL® COLLAR			
110mm Ø PE with 2.7-10mm wall thickness	110mm PROMASEAL® COLLAR			
125mm Ø PE with 3.1mm wall thickness	125mm PROMASEAL® COLLAR	40 x 12		
140mm Ø PE with 3.9-5.8mm wall thickness	140mm PROMASEAL® COLLAR	40 x 16		
160mm Ø PE with 4.9-9.5mm wall thickness	160mm PROMASEAL® COLLAR	40 x 18		

TABLE 2: OVERVIEW OF COMBUSTIBLE PIPE INSTALLATION, DIMENSIONS AND CLASSIFICATION FOR RIGID WALL ONLY (DETAIL B) WALL THICKNESS ≥100MM: PROMASEAL® COLLAR INSTALLED ON BOTH SIDES OF WALL

Pipe	Reference	Inlay W x H (mm)	Fire resistance (mins)	
			E	EI
110mm Ø PP with 2.7mm wall thickness	110mm PROMASEAL® COLLAR	30 x 10	120 U/U	120 U/U
160mm Ø PP with 4.0mm wall thickness	160mm PROMASEAL® COLLAR	40 x 18		
250mm Ø PP with 6.2mm wall thickness	250mm PROMASEAL® COLLAR	40 x 24	120 U/C	120 U/C

AUTHORITY: UL-EU CERTIFICATION (APPROVAL UL-EU-01103-CPR)



**TABLE 3: OVERVIEW OF COMBUSTIBLE PIPE INSTALLATION, DIMENSIONS AND CLASSIFICATION FOR RIGID FLOOR (DETAIL C)
FLOOR THICKNESS ≥150MM: PROMASEAL® COLLAR INSTALLED ON UNDERSIDE OF FLOOR**

Pipe	Reference	Inlay W x H (mm)	Fire resistance (mins)	
			E	EI
32mm Ø PVC with 1.8mm wall thickness	32mm PROMASEAL® COLLAR	30 x 4	240 U/C	240 U/C
40mm Ø PVC with 1.8mm wall thickness	40mm PROMASEAL® COLLAR			
50mm Ø PVC with 1.8mm wall thickness	50mm PROMASEAL® COLLAR			
55mm Ø PVC with 2.3-3mm wall thickness	55mm PROMASEAL® COLLAR	30 x 6	240 U/C	240 U/C
63mm Ø PVC with 2.3-3mm wall thickness	63mm PROMASEAL® COLLAR			
75mm Ø PVC with 3.1-4.8mm wall thickness	75mm PROMASEAL® COLLAR	30 x 8		
82mm Ø PVC with 3.1-4.8mm wall thickness	82mm PROMASEAL® COLLAR			
90mm Ø PVC with 4.2-7.4mm wall thickness	90mm PROMASEAL® COLLAR	30 x 10		
100mm Ø PVC with 4.2-7.4mm wall thickness	100mm PROMASEAL® COLLAR			
110mm Ø PVC with 4.2-7.4mm wall thickness	110mm PROMASEAL® COLLAR			
125mm Ø PVC with 6.0mm wall thickness	125mm PROMASEAL® COLLAR	40 x 12		
140mm Ø PVC with 6.1-7.5mm wall thickness	140mm PROMASEAL® COLLAR	40 x 16		
160mm Ø PVC with 6.2-9.5mm wall thickness	160mm PROMASEAL® COLLAR	40 x 18		
32mm Ø PP with 2.9mm wall thickness	32mm PROMASEAL® COLLAR	30 x 4		
40mm Ø PP with 2.9mm wall thickness	40mm PROMASEAL® COLLAR			
50mm Ø PP with 2.9mm wall thickness	50mm PROMASEAL® COLLAR			
55mm Ø PP with 2.9-4.4mm wall thickness	55mm PROMASEAL® COLLAR	30 x 6		
63mm Ø PP with 2.9-4.4mm wall thickness	63mm PROMASEAL® COLLAR	30 x 6		
75mm Ø PP with 2.8-6.7mm wall thickness	75mm PROMASEAL® COLLAR	30 x 8		
82mm Ø PP with 2.8-6.7mm wall thickness	82mm PROMASEAL® COLLAR			
90mm Ø PP with 2.7-10mm wall thickness	90mm PROMASEAL® COLLAR	30 x 10		
100mm Ø PP with 2.7-10mm wall thickness	100mm PROMASEAL® COLLAR			
110mm Ø PP with 2.7-10mm wall thickness	110mm PROMASEAL® COLLAR			
125mm Ø PP with 3.1mm wall thickness	125mm PROMASEAL® COLLAR	40 x 12		
140mm Ø PP with 3.5-8.0mm wall thickness	140mm PROMASEAL® COLLAR	40 x 16		
160mm Ø PP with 4.0-14.6mm wall thickness	160mm PROMASEAL® COLLAR	40 x 18		
32mm Ø PE with 2.9mm wall thickness	32mm PROMASEAL® COLLAR	30 x 4		
40mm Ø PE with 2.9mm wall thickness	40mm PROMASEAL® COLLAR			
50mm Ø PE with 2.9mm wall thickness	50mm PROMASEAL® COLLAR			
55mm Ø PE with 2.9-4.4mm wall thickness	55mm PROMASEAL® COLLAR	30 x 6		
63mm Ø PE with 2.9-4.4mm wall thickness	63mm PROMASEAL® COLLAR			
75mm Ø PE with 2.8-6.7mm wall thickness	75mm PROMASEAL® COLLAR	30 x 8		
82mm Ø PE with 2.8-6.7mm wall thickness	82mm PROMASEAL® COLLAR			

Continued on next page



**TABLE 3: OVERVIEW OF COMBUSTIBLE PIPE INSTALLATION, DIMENSIONS AND CLASSIFICATION FOR RIGID FLOOR (DETAIL C)
FLOOR THICKNESS ≥150MM: PROMASEAL® COLLAR INSTALLED ON UNDERSIDE OF FLOOR**

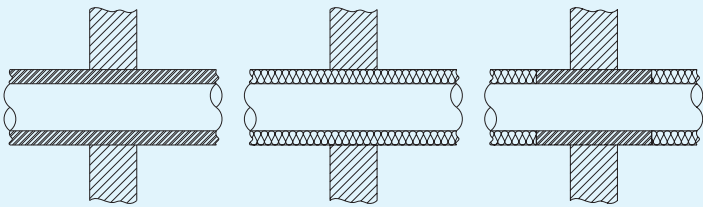
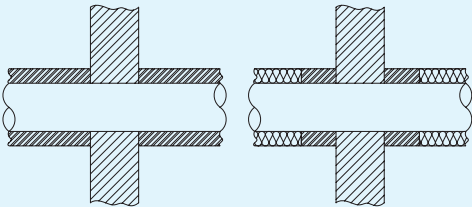
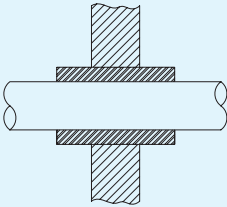
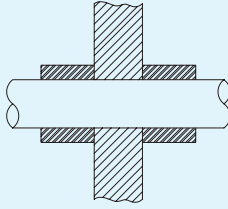
Pipe	Reference	Inlay W x H (mm)	Fire resistance (mins)	
			E	EI
90mm Ø PE with 2.7-10mm wall thickness	90mm PROMASEAL® COLLAR	30 x 10	240 U/C	240 U/C
100mm Ø PE with 2.7-10mm wall thickness	100mm PROMASEAL® COLLAR			
110mm Ø PE with 2.7-10mm wall thickness	110mm PROMASEAL® COLLAR			
125mm Ø PE with 3.1mm wall thickness	125mm PROMASEAL® COLLAR	40 x 12	240 U/C	240 U/C
140mm Ø PE with 3.9-5.8mm wall thickness	140mm PROMASEAL® COLLAR	40 x 16		
160mm Ø PE with 4.9-9.5mm wall thickness	160mm PROMASEAL® COLLAR			

**TABLE 4: OVERVIEW OF PVC PIPE INSTALLATION, DIMENSIONS AND CLASSIFICATION FOR RIGID FLOOR (DETAIL D)
CONCRETE FLOOR THICKNESS ≥150MM: PROMASEAL® COLLAR INSTALLED ON BOTH SIDES OF FLOOR**

Pipe	Reference	WRAP Inlay W x H (mm)	Fire resistance (mins)	
			E	EI
110mm Ø PP with 2.7mm wall thickness	110mm PROMASEAL® COLLAR	30 x 10	120 U/U	120 U/U
160mm Ø PP with 4.0mm wall thickness	160mm PROMASEAL® COLLAR	40 x 16	120 U/C	120 U/C



PIPE INSULATION ACCORDING TO EN 1366-3: 2009

	Local Sustained	Local Interrupted
Local: (sustained along the tube length)	 <p>Example CS (Continued Sustained)</p>	 <p>Example CI (Continued Interrupted)</p>
Local: (sectional insulation)	 <p>Example LS (Local Sustained)</p>	 <p>Example LI (Local Interrupted)</p>

The table above shows the possible arrangement of pipe insulation according to EN 1366-3.

CONFIGURATION OF PIPE END ACCORDING TO EN 1366-3: 2009

Test Condition	Pipe and configuration		Type of pipes
	Oriented inside (in furnace)	Oriented outside (outside the furnace)	
U/U	Uncapped	Uncapped	Plastic: rainwater, ventilated sewage (drainage channel)
U/C	Uncapped	Capped	Plastic: unventilated sewage; gas; drinking water, water for heating; (supply channel); metal: non-fire resistant suspension/coupling systems
C/U	Capped	Uncapped	Metal: fire-resistant suspension/coupling systems
C/C	Capped	Capped	–

It is important to ensure that sealing systems have been tested with appropriate pipe end conditions.

The conditions the pipe and sealing system must endure in a fire situation depend on whether one or both ends of the pipe are sealed in practice, as pressures and the flow of hot gases will vary depending on whether the pipe is ventilated or not.

There are rules that determine which tested end configurations are valid for additional pipe end situations.

For metal pipes

		Tested			
		U/U	C/U	U/C	C/C
Covered	U/U	Y	N	N	N
	C/U	Y	Y	Y	N
	U/C	Y	N	Y	N
	C/C	Y	Y	Y	Y

For plastic pipes

		Tested			
		U/U	C/U	U/C	C/C
Covered	U/U	Y	N	N	N
	C/U	Y	Y	N	N
	U/C	Y	Y	Y	N
	C/C	Y	Y	Y	Y

Y = Acceptable N = Not acceptable

Terms	
UL Listing	UL certifies, validates, tests, inspects and audits. The UL Mark is the most common Certification Mark in the United States and Europe. If a product carries one of these marks, it means UL found that the representative product samples met UL's requirements.
Flexible Walls	A wall made from steel stud, 2 layers of Type F gypsum boards and mineral wool cavity with a thickness and make up appropriate to the required fire resistance classification.
Rigid Walls	A wall made of aerated concrete slabs, lightweight concrete or high density concrete and a thickness appropriate to the required fire resistance classification. Masonry/concrete walls to have minimum density of 700kg/m ³ for concrete or brick and 600kg/m ³ for aerated concrete blocks.
Rigid Floors	A floor made of aerated concrete slabs, lightweight concrete or high density concrete and a thickness appropriate to the required fire resistance classification. Masonry/concrete floors to have minimum density of 700kg/m ³ for concrete or brick and 600kg/m ³ for aerated concrete blocks.
EN 1366-3 EN 1366-4	Fire Resistance tests for service installations. Penetration seals. Fire Resistance tests for service installations. Linear joint seals.
EN 13501-1 EN 13501-2	Reaction to Fire Classification. Resistance to Fire Classification.
BS 476	Pt 20: Fire tests on building materials and structures. Method for determination of the fire resistance of elements of construction (general).Pt 22: Fire tests on building materials and structures. Methods for determination of the contribution of components to the fire resistance of a structure.

Supplement markings	Denomination / Characteristics / Requirements
E	Integrity (ignition of cotton pad, cracks and opening occurrence of sustained flaming on unexposed side)
I (I1, I2)	Thermal insulation (average temperature rise, maximum temperature rise)
U	Pipe end configuration »uncapped«
C	Pipe end configuration »capped«

AUTHORITY: UL-EU CERTIFICATION (APPROVAL UL-EU-01103-CPR)



Etex Building Performance Limited

Marsh Lane, Bristol BS20 0NE | 0800 145 6033

technical.promat@etexbp.co.uk | www.promat.co.uk