



Product Review Report

**Sunnydaze Pty Ltd
Metal pipe cover of PEX gas pipe
Review against AS3959-2009 Amdt 3**



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Client:

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1 SCOPE AND LIMITATIONS OF THE REVIEW

The following scope of works was undertaken on the relevant construction provisions of *AS3959-2009 amdt 3 Construction of buildings in bushfire-prone areas*, as they relate to the installation of Sunnydaze Pty Ltd Metal pipe cover of PEX gas pipes when installed penetrating a brick veneer wall construction.

The scope of the review included the following aspects:

- Review of Sunnydaze Internal product specification and installation document titled – ‘INSTALLATION OF 25MM AND 32 MM GAS STUMP.v1’
- Compare reviewed information with the acceptable construction practices in the following documents:
 - AS3959-2009 (amdt 3) Construction of buildings in bushfire prone areas
- Based on comparative review, provide opinion on where the systems may be suitably used in accordance with the relevant prescribed construction practices.
- Provide recommendations of further testing or assessment of the systems that may be required in order to satisfy other prescribed provisions of AS3959-2009 (amdt 3).

This review is an opinion to the extent that the subject system may satisfy the relevant prescribed construction practices in AS3959-2009 (amdt 3), and is not to be construed as endorsement or certification of compliance against these provisions.

Any technical service that is with respect to the determination of compliance with AS3959-2009 (amdt 3) is to be undertaken by an independent third party body, consistent with providing an efficient and robust fire protection product certification services for products.

2 DESCRIPTION OF SYSTEMS



2.1 PRODUCT


Product Names: Sunnydaze Pty Ltd Metal pipe cover of PEX gas pipe

Product Type: Pipe Cover

Manufacturer: Sunnydaze Pty Ltd

Table 2.1 – Part/Material List:

ID	Description	
1	Name	Sunnydaze Gas Stump 25mm and 32mm
	Size	<p>33.70mm OD × 200mm long × 2.3mm thick wall (Nominal 25mm internal diameter). Pipe welded to a nominal 80mm long × 40mm high × 3mm thick black steel back plate incorporating 3-off, 4mm diameter screw holes.</p> <p>or</p> <p>42.4mm OD × 200mm long × 2.3mm thick wall (Nominal 32mm internal diameter). Pipe welded to a nominal 80mm long × 40mm high × 3mm thick black steel back plate incorporating 3-off, 4mm diameter screw holes.</p> 
	Material	C350LO Black Steel
	Location	<p>Installed horizontally as a protective sleeve over the PEX gas pipe on the exposed side of wall, penetrating through the external skin of bricks and screw fixed to the internal timber studs on the unexposed skin. The penetration location sealed with mortar as shown here. Pipe installed within 400mm from the ground.</p> 
	Fixings	3-off standard timber fixing screws, minimum 32mm long.
2	Name	Elbow fitting
	Product	25 MI × 25mm PEX Elbow
	Size	<p>25 MI Thread BSP DR fitted with a 25mm plastic stop cap over a 27.5mm Stainless crimping sleeve for the Gas Stump to fit against.</p> <p>Or</p>

ID	Description	
		<p>25 MI Thread BSP DR fitted with a 32mm plastic stop cap over a 38.5mm Stainless crimping sleeve for the Gas Stump to fit against.</p> 
	Material	Dezincification Resistant (DR) Brass
	Installation	The PEX Elbow is connected to the PEX pipe, with the sleeve over the top butting up to the plastic stop cap.
3	Name	Pipe
	Type	PEX Gas Pipe
	Size	25mm in diameter Or 32mm in diameter
	Installation	Pipe connected to Elbow fitting (Item 2), penetrating through the wall into the wall cavity, protected by Gas Stump (Item 1)
4	Name	Wall System – External Skin
	Type	Masonry
	Size	Min 110mm deep × 76mm high × 230mm long
	Installation	Installed using a standard 6:1:1, 10mm thick mortar mix.
5	Name	Wall System – Internal Skin
	Type	Timber
	Size	Min 90mm × 38mm thick timber framing
	Installation	Standard external timber wall for brick veneer construction with minimum 40mm air gap.

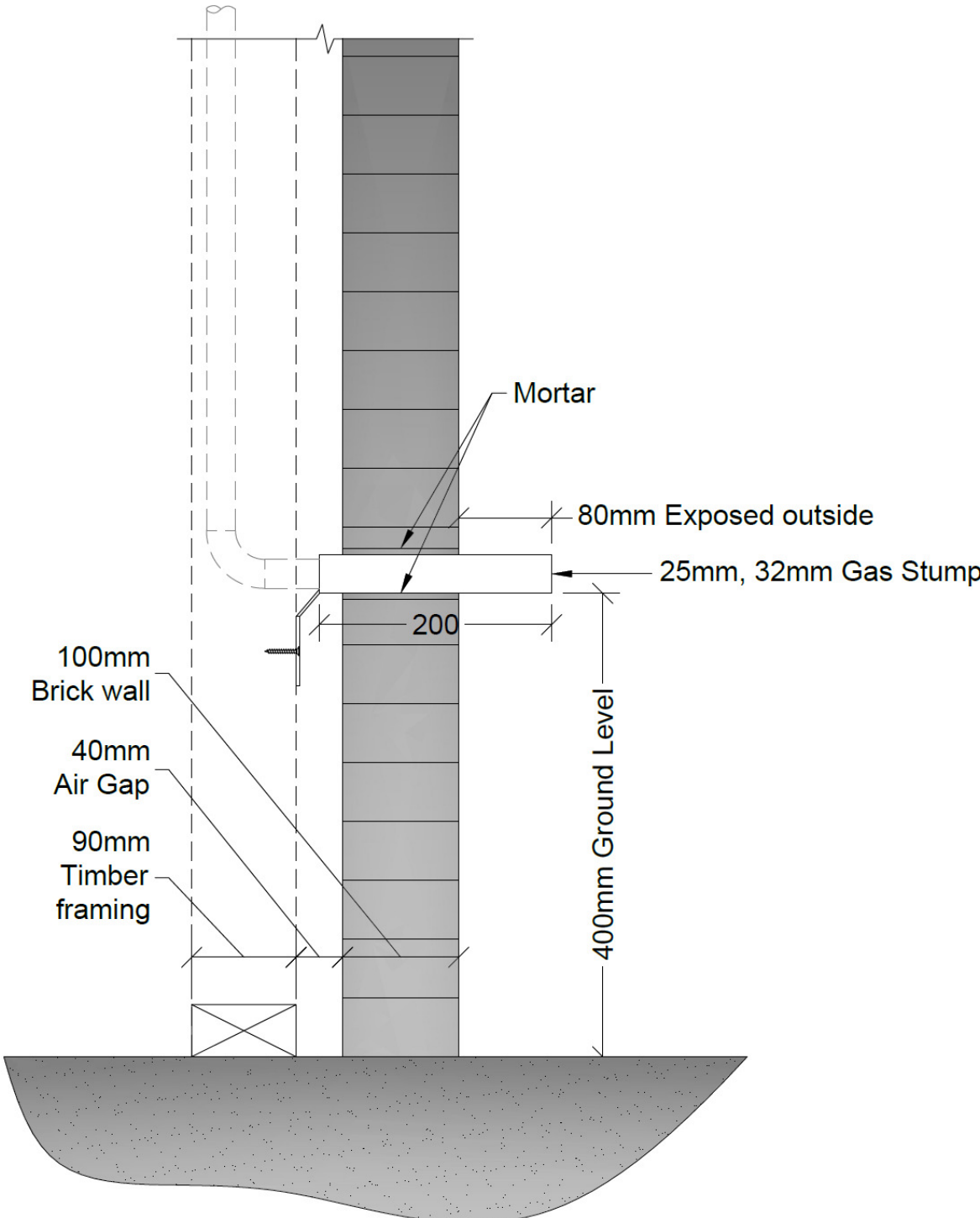


Figure 1 – Section of installation

2.2 FIELD OF APPLICATION

The nominated systems and provided information have been compared against the prescribed requirements of AS3959-2009 (amdt 3) in order to ascertain the extent the systems may be used with the current evidence of suitability (see BCA A2.2) and what further evidence of suitability may be generated to extend the range of prescribed uses.

2.3 REFERENCED TECHNICAL DATA PROVIDED BY SUNNYDAZE PTY LTD

The following technical information was provided by Paragon Property Holdings

Product	Technical Information Brochure
Sunnydaze Pty Ltd Metal pipe cover of PEX gas pipe	Sunnydaze Internal product specification and installation document titled – 'INSTALLATION OF 25MM AND 32 MM GAS STUMP.v1'

3 SUNNYDAZE PTY LTD PRODUCT REVIEW

3.1 SUNNYDAZE PTY LTD METAL PIPE COVER OF PEX GAS PIPE – 25MM AND 32MM DIAMETER GAS STUMP

The application of the subject system has been reviewed against the prescribed construction practices nominated in AS3959-2009 (amdt 3). In each bushfire attack level and area of application, an opinion is provided to the use of the system. Additional details are provided as below and the corresponding section of AS3959-2009 (amdt 3).

Application	BAL12.5	BAL19	BAL29	BAL40	BALFZ
External walls (parts less than 400mm from ground or near horizontal surface ($<18^\circ$ to horizontal).	✓ [Note1] §8.8 §3.4	✓ [Note1] §8.8 §3.4	✓ [Note1] §8.8 §3.4	✓ [Note1] §8.8 §3.4	✗ [Note 2] §8.8
External walls (other)	✓ [Note1] §8.8 §3.4	✓ [[Note1] §8.8 §3.4	✓ [Note1] §8.8 §3.4	✓ [Note1] §8.8 §3.4	✗ [Note 2] §8.8

Notes:

1. This application is for circumstances where it states 'Above ground, exposed water and gas supply pipes shall be metal' (Refer clause 8.8 of AS3959-2009 amdt 3).
2. This application is not approved on the basis that the metal pipe is covering the PEX pipe and is not pressure sealed as per a standard sealed gas connections. The fitting of the Gas Stump to the elbow, seals against a plastic stop cap.

4 **CONCLUSION**

The reviewed Sunnydaze Pty Ltd Metal pipe cover of PEX gas pipe may be used in BAL Levels from BAL-12.5 – BAL- 40 with consideration and exceptions to the issues discussed in this report for each of the systems, in Section 3. Compliance to relevant building regulations in the use of the product within a development is subject to acceptance by the Authorities Having Jurisdiction.

Alternate arrangements of the system in conjunction with other elements may be appropriate, subject to further investigation.

5 VALIDITY / DISCLAIMER

This report is prepared for *Sunnydaze Pty Ltd* as described in this report only and applies to the nominated materials and form of construction in review AS3959-2009 (amdt 3).

Any modifications, changes or amendments to the AS3959-2009 and referenced standards may invalidate the findings of this report. These items should be referred to Exova Warringtonfire Aus Pty Ltd to allow consideration to be made of the extent that these changes may have to the outcome of this review, detailed in this report.

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