# **PENOSIL**

**TECHNICAL DATA SHEET** 

# **Lead Flashing 385**

# ROOFING & FLASHING SILICONE

## **PRODUCT DESCRIPTION**

PENOSIL Lead Flashing 385 is a one-part, low modulus neutral cure silicone sealant which cures in atmospheric conditions to form a durable, watertight, permanent and flexible seal, for use with lead sheets and flashings.

PENOSIL Lead Flashing 385 does not content corrosive or strong smell additives and preserves all properties of elasticity and adherence with no ageing problems, remaining stable in front of atmospheric agents.

#### **MAIN BENEFITS**

- Excellent flexibility.
- High movement capability. Withstands the rates of thermal movement of lead and masonry.
- Excellent primerless adhesion to a wide range of substrates. Fully compatible with lead, galvanized steel and all metals.
- UV radiation, weather and ageing resistant.
- Low odour.
- Indoor / outdoor.
- Non-corrosive to metals.
- Solvent free.
- Ready to use.
- Extremely long service life.

# **PRODUCT CERTIFICATIONS**

PENOSIL Lead Flashing 385 meets the following specifications:

CE Marking: EN 15651-1 F-EXT-INT-CC

EN 15651-2 G-CC

UKCA Marking: BS EN 15651-1 F-EXT-INT-CC

BS EN 15651-2 G-CC

# **ENVIRONMENTAL REGULATIONS**

French VOC-emission class B.

# **PACKAGING INFORMATION**

This product is available in 300 ml cartridges (24 u./box).
Other packaging is available under request.

# **COLOURS INFORMATION**

Dark grey.
Other colours are available on special order.

# **STORAGE**

The shelf life is 12 months in its unopened original packaging, in dry conditions and protected from direct sunlight at temperatures between +5°C and +30°C.



EN 15651-1: F-EXT-INT-CC EN 15651-2: G-CC



BS EN 15651-1: F-EXT-INT-CC BS EN 15651-2: G-CC





# **FIELDS OF APPLICATION**



Roof repair and guttering. Durable and watertight seal between lead and most roofing substrates.

Ideally suited for sealing roof lights, downpipes, leadflashing, chimneystacks, ventilation ducts, etc.

Sealing of joints between dissimilar materials, including glass and plastics, to prevent water ingress.

Sealing of joints between porous and non-porous substrates including concrete, masonry, brick, aluminium (lacquered, anodized, painted,...), PVC, glass, ceramics and most plastics.

#### **TYPICAL TECHNICAL DATA**

Basis:		Neutral oxime silicone			
Consistency:		Non-slump paste			
Specific gravity:	(ISO 2811-1)	1,20 g/ml (depending on the colour)			
Tack free time:	(OQ.06-internal)	Approx. 5 minutes (at 23°C; 50% R.H.)			
Skin forming time:	(OQ.16-internal)	5-10 minutes (at 23°C; 50% R.H.)			
Curing rate:	(OQ.18-internal)	Approx. 3 mm/24 h			
Resistance to flow:	(ISO 7390)	0 mm (at 5°C and 50°C)			
Elastic recovery:	(ISO 7389)	> 80% (at 100% elongation)			
Loss of volume:	(ISO 10563)	< 30%			
Shore A hardness:	(ISO 868)	27			
Total VOC content:	(SCAQMD rule 1168)	Approx. 160 g/l			
Application temperature:		+5°C to +40°C			
Service temperature:		-40°C to +150°C			
Tensile properties:					
ISO 37 (2mm thickness, S2	dumbbells, 7 days, 23°C;	50% R.H.)			
E-Modulus 100%		0,50 MPa			
Tensile strength		1,50 MPa			
Elongation at break		550%			

These values may vary depending on environmental factors such as temperature, moisture, and type of substrates. The time until complete curing may be extended at lower temperature, lower humidity or increasing film thickness.

## **DIRECTIONS FOR USE**

# Surface preparation and sealant application

# A. Cleaning and joint preparation:

Substrates (joint flanks) must be clean, dry, and free of dust, grease and other contaminant which may affect the adhesion. Non-porous surfaces (such as aluminium, glass, etc.) should be cleaned with a suitable solvent and thoroughly dried with a clean cloth. Porous substrates (such as concrete, brickwork, etc.) must be mechanically cleaned from loose particles. Mask off the joint edges.

#### B. Primer:

PENOSIL Lead Flashing 385 adheres to most common construction materials without primer, however, a preliminary adhesion test is recommended on every surface. Sometimes, it may be necessary to treat the joint surfaces with a primer to obtain better adhesion performances.

#### **Primers:**

Product:	Application
PENOSIL Porous surfaces Primer P-10	Porous surfaces. (e.g. concrete, cement, marble, natural and artificial stone, etc.)
PENOSIL Non-porous surfaces Primer P-20	Non-porous surfaces. (e.g. aluminium, iron, stainless steel, zinc, copper, brass, painted surfaces and most plastics)
PENOSIL All surfaces Primer P-80DS	All surfaces. Substrates exceptionally difficult to adhere on.

# C. Inserting backing material:

In wider joints, a backer rod should be used to ensure the sealant joint's correct thickness, shape and to avoid three-sided adhesion. Choose the right backing strip diameter, at least 25% wider than the joint width.

## D. Silicone sealant application:

After substrate preparation, apply the sealant in the joint by repeatedly and evenly with a professional caulking gun. Observe the eventually used primer's open time before filling the joint.

# E. Tooling and finishing:

The joint should be tooled and smoothed before skin formation. Press the sealant and smooth it ensuring good contact with the surfaces to seal. Use neutral soapy water as a tooling agent. Remove masking tape. Uncured product may be easily removed with solvents such isopropyl alcohol or "white spirit". Cured sealant must be removed mechanically.

# **Remarks**

Do not use PENOSIL Lead Flashing 385 on bituminous substrates or on building materials which might bleed oils, plasticizers or solvents (e.g. natural rubber, chloroprene, EPDM, ...).

There is no adhesion to PE, PP, PTFE (Teflon®). Due to the wide variety of possible substrates, we recommend a preliminary compatibility test.

Non suitable for use on natural stone.

PENOSIL Lead Flashing 385 cannot be overpainted.

Not intended for structural glazing.



# Joint design

Expansion joints should be correctly dimensioned taking account of dimensional changes in the substrates due to thermal fluctuations. Joint's dimensions should match with the sealant movement capability, with a maximum permitted value of 25%.

Use closed cell polyethylene backer foam (PENOSIL Backer Rod PE 450) as a back-up material to limit the sealant joint depth and avoid three-sided adhesion.

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# Joint dimensioning

- a Joint width
- b Joint depth
- c Sealant Depth
- Silicone sealant
  - Backing material

# Recommendations should be followed

General statement: The ideal joint has a 2:1 (width:depth ratio)

Minimum joint dimensions: 5-6 mm width x 5-6 mm depth

Up to 12 mm wide: width = depth From 12 mm to 24 mm wide: depth =  $\frac{1}{2}$  width Wider than 24 mm: depth = 12-15 mm

## Coverage

Estimated consumption in linear meters per 300 ml. cartridge (approx.):

Joint width (a):	5 mm	6 mm	8 mm	10 mm	12 mm	15 mm	20 mm	25 mm	30 mm
Joint depth (b):									
5 mm	12	10	8	6	5	4	3	2,5	2
8 mm	8	6	5	4	3	2,5	1,8	1,5	1,2
10 mm	6	5	4	3	2,5	2	1,5	1,2	1
12 mm	5	4	3	2,5	2	1,6	1,2	1	0,8
15 mm	4	3,5	2,5	2	1,6	1,3	1	0,8	0,6

Green shades determine the width to depth recommended ratio

# Safety

Use in well-ventilated areas and avoid skin and eye contact. Keep out of the reach of children.

The information regarding the safety of the product is available on safety data sheet (SDS). Before using the product, we recommend to read carefully the SDS and the safety labels.



## **GUARANTEE INFORMATION**

WOLF GROUP warrants that its product complies, within its shelf life, to its specification.

If any responsibility were to be considered ours, this would be only for any damages and for the value of the merchandise supplied by us and used by the customer. It is over understood that we warranty the irreproachable quality of our products in accordance with our General Conditions of Sales and Supply.

# **Liability**

The information in this document, in particular recommendations regarding the application and final use of our products, are given in good faith based on our knowledge and is the result of tests and experience and are intended as guidelines. It is the responsibility of the user to determine whether the product is suitable for the application. Due to the great variety of materials and conditions, which are beyond our knowledge and control, we recommend carrying out sufficient previous trials.

The property rights of third parties must be respected.

TECHNICAL DATA SHEET PENOSIL Lead Flashing 385 v01 - 06.2023

This TDS replaces and supersedes all previous data sheets on the same product.

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