

Application:	Linear gap joint seals - movement
Fire resistance period:	Up to 240 minutes
Insulation/integrity:	Insulation and integrity
Test standard:	BS EN 1366-4
Classification:	EI 240

Fire Rated Silicone Sealant



Pyroplex® Fire Rated Silicone Sealant is a one part, low modulus, neutral cure, halogen free product. It is suitable for the sealing of construction joints and around pipe penetrations which have been protected by the recommended Pyroplex® intumescent product. It is also ideal for the weathersealing of curtain walling, building facades and expansion joints in fire rated walls. It is fire rated up to 240 minutes and offers excellent adhesion to many common building substrates. It has outstanding resistance to ozone, UV and temperature extremes and is tack-free within two hours. It is tested to BS EN 1366-4 and has a European Classification EI 240 in accordance with BS EN 13501-2.

FIELD OF APPLICATION

Pyroplex® Fire Rated Silicone Sealant has been designed for use when:

- Sealing linear gap joint seals
- Sealing around metallic pipe penetrations
- Sealing around plastic pipe or cable penetrations which have been protected with the recommended Pyroplex® intumescent product eg. CE Marked Pipe Collar, CE Marked Pipe Wrap

PRODUCT FEATURES

- Fire resistance up to 240 minutes
- Outstanding resistance to ozone, UV and temperature extremes
- Excellent adhesion to many common building substrates
- Fast cure [tack free in 2 hours]
- Joint movement accommodation 25%
- Pyroplex® Fire Rated Silicone Sealant is fire rated – it is not intumescent

PRODUCT DATA

Ref.	Seal width	Seal depth	Joint type	Backing media	Integrity	Insulation
E	15mm	10mm	Single	PE	240 mins	180 mins
F	40mm	25mm	Double	MW	240 mins	240 mins
J	25mm	15mm	Single	PE	240 mins	120 mins
L	15mm	10mm	Double	MW	240 mins	240 mins

INSTALLATION INSTRUCTIONS

1. For external applications ensure that all the surfaces are clean, dry, sound and frost free. Clean all joints thoroughly to ensure that the adhesion of the silicone to the substrate is not impaired.
2. It may be necessary to mask adjacent areas to prevent contamination and to ensure a neat sealant line. Masking tapes should be immediately removed after tooling and finishing.
3. Install backing materials as required and fill the cavity or void with silicone.
4. The joint should be tooled within 5 minutes of application to ensure good contact between the silicone and substrate. Tooling of the sealant also gives a smooth and professional finish.

5. Excess silicone should be cleaned off and non-porous surfaces cleaned whilst in an uncured state using a suitable solvent. Sealant adhering to porous surfaces should be left until it has cured, then remove by mechanical means.
6. Dispose of spent cartridges in accordance with local regulations.

PACKAGING INFORMATION

Pyroplex® Fire Rated Silicone Sealant is supplied in:



310ml cartridges
Part No: PFRS310WT

QUALITY APPROVAL

Pyroplex Limited have a Quality Management System that meets the requirements of ISO 9001 and an Environmental Management System that meets the requirements of ISO 14001, both are independently verified by BSI Quality Assurance under Certificate Numbers FM 10371 and EMS 637894. Copies of these certificates are available on our website to download at www.pyroplex.com

OTHER INFORMATION

The information contained herein is based upon the present state of our knowledge. Recipients of Pyroplex® products must take responsibility for observing existing laws and regulations.

Due to our policy of continuous improvement, Pyroplex Limited reserves the right to amend specifications without prior notice.

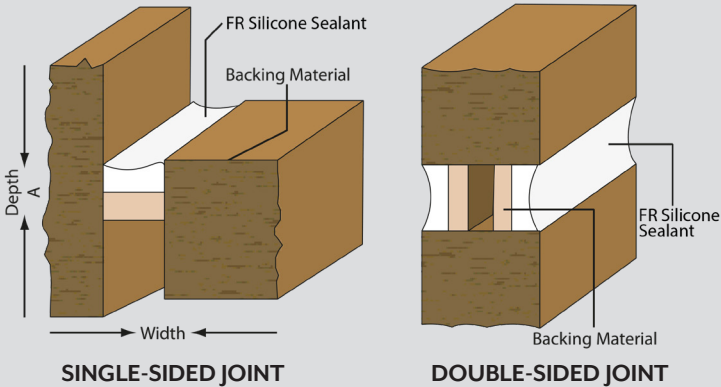
TECHNICAL DATA:

PRODUCT TESTING

A number of independent fire resistance tests have been carried out to confirm the suitability of the product and to demonstrate product compliance by utilising BS EN 1366-4 and other international standards. Pyroplex® Fire Rated Silicone Sealant has a European Classification EI240 in accordance with BS EN 13501-2.

JOINT CONFIGURATION

The fire resistance performance of the material is based upon the joint configuration and the position and location of the seal, within the construction and backing materials used.



BACKING MATERIAL

Backing materials	
PE	Polyethylene, with a nominal density of 0.35kg/m ³
MW	Mineral wool, with a nominal density of 100kg/m ³

STRUCTURAL CONSTRUCTION

Pyroplex® Fire Rated Silicone Sealant can be used in walls and floors of a solid construction.

Construction element	Fire resistance period [mm]	Minimum thickness	Material types and minimum density
Wall and floor	Up to 120 minutes	100mm	Solid masonry work*, with a density no less than 650kg/m ³
Wall and floor	Up to 240 minutes	150mm>	Solid masonry work*, with a density no less than 650kg/m ³

*Aerated concrete, lightweight ash blocks and/or solid brick construction.

Wall construction and fire resistance periods:

Aerated concrete, lightweight ash blocks and/or solid brick construction.

CONSUMPTION GUIDE

Depth	Width				
	6mm	10mm	15mm	20mm	25mm
10mm	5m	3m	2m	1m	1m
15mm	3m	2m	1m	1m	0.8m
20mm	2m	1m	1m	0.7m	0.6m

Linear metres per 310ml cartridge, the figures quoted estimated and for guidance only.

MAINTENANCE AND INSTALLATION RECORDS

Pyroplex Limited recommend that all firestopping materials are checked on a regular basis to ensure that the product remains integral.

PRODUCT GUARANTEE

Providing the product is installed in accordance with the requirements of the guidance document, the fire performance characteristics of the product is guaranteed for a period of 10 years.

TECHNICAL SUPPORT AND GUIDANCE

Should you require any further information regarding this product please contact Pyroplex Limited or visit our website, www.pyroplex.com

MATERIAL SAFETY DATA:

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

- 1.1 **Product name:** Pyroplex Fire Rated Silicone Sealant
- 1.2 **Use:** A neutral cure, single component, fire resistant silicone sealant for internal and external uses.
- 1.3 **Supplier of the safety data sheet:**
Pyroplex Limited
The Furlong,
Droitwich,
Worcestershire, WR9 9BG,
United Kingdom
Phone: +44 (0)1905 795432
Fax: +44 (0)1905 796662
Email: info@pyroplex.com
www.pyroplex.com
E-Mail of competent person responsible for SDS: andy.walsh@pyroplex.com
- 1.4 **Emergency telephone number:** Local emergency service or 999

SECTION 2: HAZARDS IDENTIFICATION

- 2.1.1 Regulation EC 1272/2008
This product is not classified as hazardous according to regulation (EC) 1272/2008 (CLP)
- 2.2 **Label elements**
 - 2.2.1 Regulation EC 1272/2008
Contains N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine. May cause an allergic reaction.
EUH210 Safety data sheet available on request

2.3 Other hazards

This product does not contain any PBT or vPvB substances

Evolves Methanol during cure

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No.	EC No.	REACH Registration No.	Classification According to Reg. (EC) 1278/2008 (CLP)	% W/W
Trimethoxyvinylsilane	2768-02-7	220-449-8	01-2119513215-52	Flam. Liq. 3 H226 Acute Tox. 4; inhalation H332	<2
N-[3-(dimethoxymethylsilyl)propyl]-ethylenediamine	3069-29-2	221-336-6	01-2119963926-21	Skin sens. 1A H317 Eye dam. 1 H318 Acute tox. 4 H302 Skin irrit. 2 H315	<1
Methanol	67-56-1	200-659-6	01-2119433307-44	Flam. Liq. 2 H225 STOT SE 1 H370 Acute tox 3; inhalation H331; Dermal H311; Oral H301	<1

SECTION 4: FIRST AID MEASURES

4.1 General: In all cases of doubt or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Skin Contact: Wash skin thoroughly with soap and water or a recognised skin cleaner. DO NOT USE SOLVENT OR THINNERS. Seek medical attention if irritation persists.

Eye Contact: Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes holding eyelids apart, and seek medical advice.

Ingestion: If accidentally swallowed wash mouth with water and give large volumes of water to drink.

DO NOT induce vomiting. Seek medical attention.

Inhalation: Remove to fresh air. If symptoms persist, or if in doubt, seek medical attention.

4.2 Most important symptoms and effects

Skin contact: Prolonged contact may cause irritation and dry skin.

Eye contact: May cause eye irritation.

Ingestion: Possible discomfort.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing Media: Foam, CO₂, powder, water spray/mist.

5.2 Special Hazards: Contains organic compound so black smoke and carbon monoxide and carbon dioxide will be released in a fire.

5.3 Advice for firefighters: Do not allow run off from fire fighting to enter drains or water courses. Wear self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions and protective equipment: Avoid skin and eye contact. Wear personnel protective equipment. Ensure adequate ventilation.

6.2 Environmental precautions: Do not allow to enter drains or water courses.

6.3 Method for containment and clean up: Contain and collect spillages and place in a suitable container for disposal in accordance with the waste regulations (see section 13). Cured product is non-hazardous.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling: Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited during use. For personal protection see Section 8. Keep away from sources of ignition. Take precautions to avoid static electricity discharge.

The Manual Handling Operations Regulations may apply to the handling of containers/packages of this product. In order to calculate the weight of any pack size, multiply the volume in litres by the specific gravity value given in section 9. This will give the net weight of the product in kilograms.

7.2 Precautions for safe storage: Keep containers closed when not in use. Observe label precautions – Store between 5°C and 25°C. in a dry well-ventilated place away from sources of heat. Protect from frost. Keep out of reach of children. Store separately from oxidising agents and strongly acidic materials.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

EXPOSURE LIMITS:

Substance	Occupational Exposure Limits				Notations
	8 hr LTEL (1)		15 min STEL(2)		
	ppm	mgm ⁻³	ppm	mgm ⁻³	
Methanol			250	333	EH40 WEL
Methanol			200	266	TWA

(1) Long-term exposure limit – 8 hour time weighted average.

(2) Short-term exposure limit – 15 mins time weighted average.

(S) Occupational Exposure Standard (OES)

(M) Maximum Exposure Limit (MEL)

Time weighted average (TWA)

® Recommended by suppliers

8.2 Exposure Controls

Engineering measures: Provide adequate ventilation during application and drying.

Respiratory equipment: If ventilation is insufficient suitable respiratory protective equipment must be worn.

Skin & hand protection: Wear suitable protective clothing and plastic or rubber gloves.

Eye protection: Eye protection designed to protect against liquid splashes should be worn. Equipment should conform to EN166

Hygiene measures: When using do not eat drink or smoke. Wash hands before eating, drinking, smoking or using the toilet.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Viscous paste
Odour	Slight aromatic
Flash point	N/A
Specific gravity	1.34-1.40 @ 20°C
Solubility	Not soluble in water
Service Temp range	-30 to +150°C

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under normal temperature and storage conditions

10.3 Possibility of hazardous reactions

No hazardous reactions known

10.4 Conditions to avoid

Strong acids, bases and oxidising materials

10.5 Incompatible materials

See section 10.4

10.6 Hazardous decomposition products

See section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological effects

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value Mg/kg	Route of application	Exposure time	Species	Method
Trimethoxyvinylsilane 2768-02-7	LD50	7120	Oral		Rat	OECD Guideline 401 (Acute Oral Toxicity)
N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine 3069-29-2	LD50	200-2000	Oral		Rat	OECD Guideline 423 (Acute Oral toxicity)
Methanol 67-56-1		100	Oral			Expert judgement

Acute Inhalative toxicity:

Hazardous components CAS-No.	Value type	Value Mg/kg	Route of application	Exposure time	Species	Method
Trimethoxyvinylsilane 2768-02-7	LC50	16.8	Vapour	4hr	Rat	OECD Guideline 403 (Acute inhalative Toxicity)
Methanol 67-56-1	ATE	3	Vapour			Expert judgement

Acute Dermal toxicity:

Hazardous components CAS-No.	Value type	Value Mg/kg	Route of application	Exposure time	Species	Method
Trimethoxyvinylsilane 2768-02-7	LD50	3.540	Dermal		Rabbit	
N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine 3069-29-2	LD50	15.52	Dermal		Rabbit	

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

Hazardous components CAS-No.	Value type	Value Mg/ltr	Route of application	Exposure time	Species	Method
Trimethoxyvinylsilane 2768-02-7	LC50	191		96	Fish	OECD Guideline 203 (Acute Toxicity test)
N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine 3069-29-2	LC50	168		96	Fish	OECD Guideline 203 (Acute toxicity test)
Methanol 67-56-1	LC50	>1000		48	Fish	

12.2 Persistence and degradability

Biodegradation 80% (28d) aerobic. Readily biodegradable.

12.3 Bio accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No PBT or vPvB materials present

12.6 Other adverse effects

Not available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of this material as hazardous or special waste in accordance with local or national requirements.

Cured product is non-hazardous and can be disposed of as household waste.

Dispose of contaminated packaging as product.

SECTION 14: TRANSPORT INFORMATION

This product is not covered by International regulation on the transport of dangerous goods.

14.1 UN number: N/A

14.2 Proper shipping name: N/A

14.3 Transport hazard class: See 14.2

14.4 Packing group: See 14.2

14.5 Environmental hazards: Not classed as Marine pollutant

14.6 Special precautions for users: No. See section 7

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code: Not applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical (Hazard Information and Packaging for Supply) (Amendment) Regulations 2009

Control of Substances Hazardous to Health Regulations 1999

Environment Act 1995

Management of Health and Safety at Work Regulations 1999

Personal Protective Equipment at Work Regulations 1992

Special Waste Regulations 1996 as amended

HEALTH AND SAFETY EXECUTIVE GUIDANCE NOTES

HS(G)37 An Introduction to Local Exhaust Ventilation

EH40 Occupational Exposure Limits

EH44 Dust: General Principles of Protection

HS(G)53 The Selection, Use and Maintenance of Respiratory Protective Equipment

HS(G)71 Storage of Packaged Dangerous Substances

HS(G)193 COSHH Essentials: easy steps to control chemicals

L23 Manual Handling Guidance on Regulations

BRITISH STANDARDS PUBLICATIONS

EN420: General Requirements for Gloves

EN166: Personal Eye Protection: Specifications

BS2092: Eye Protection for Industrial and Non-Industrial Users

BS4275: Recommendations for the Selection, Use and Maintenance of Respiratory Protective Equipment

15.2 Chemical safety assessment

SECTION 16: OTHER INFORMATION

Symbols and text of the H phrases in section 2:

H225 Highly flammable liquid and vapour

H226 Flammable liquid and vapour

H301 Toxic if swallowed

H302 Harmful if swallowed

H311 Toxic in contact with skin

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

H331 Toxic if inhaled

H332 Harmful if inhaled

H370 Causes damage to organs

The information contained in the Health and Safety Data Sheet is provided in accordance with the requirements of (EC) Regulation 1272/2008 (CLP). The product should not be used for purposes other than those identified without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the suppliers control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. This information contained in the safety data sheet is based on present knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular application.