PYROPLEX®

UK Manufacturer of Passive Fire Protection Products

QUICK VIEW		
	Application:	Linear Gap Joint Seals - Movement
	Fire Resistance Period:	240 minutes
	Insulation/Integrity:	Insulation and Integrity
	Test Standard:	BS EN1366: Part 4: 2006
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Silicone Sealant - 4 Hour Fire Rated

Product Data Sheet

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.

Pyroplex® Fire Rated Silicone Sealant is fire rated up to 4 hours and offers excellent adhesion to many common building substrates. It has outstanding resistance to ozone, UV and temperature extremes and is tack free within 2 hours.

Pyroplex® Fire Rated Silicone Sealant is tested to BS EN1366: Part 4 and other International Standards including BS476.

Field of Application

Pyroplex® 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. pipe collar, pipe wrap.

Product Features

- Fire rating up to 4 hours.
- Excellent adhesion to many common building substrates.
- Fast cure (tack free in 2 hours).
- Outstanding resistance to ozone, UV and temperature extremes.
- Joint movement accommodation +/-25%.
- Pyroplex® 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

Backing Materials	
PE	Polyethylene, with a nominal density of 0.35kg/m³
MW	Mineral wool, with a nominal density of 100kg/m³

Product Packaging

Pyroplex® Silicone Sealant is supplied in 310ml cartridges. 25 cartridges per box complete with 25 nozzles.

Product Testing

Pyroplex® have carried out numerous independent fire resistance tests to confirm the suitability of the product and to demonstrate product compliance by utilising BS EN1366: Part 4: 2006 and other international standards including BS476.

WF Report No. 166576B is available on request from Pyroplex®. CERTIFIRE Approved CF595.

Installation Instructions

Ensure that all the surfaces are clean, dry, sound and frost free (external application) clean all joints thoroughly to ensure that the adhesion of the silicone to the substrate is not impaired.

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.

Install backing materials as required and commence to fill the cavity or void with silicone.

The joint should be tooled within 5 minutes of the application to ensure good a contact between the silicone and substrate. Tooling of the sealant also gives a smooth and professional finish.

Excess silicone should be cleaned off and non-porous surfaces whilst in an uncured state using a suitable solvent. Sealant adhering to porous surfaces should be left just until final state for cure is achieved and then removed by mechanical means.

Dispose of spent cartridges in accordance with local regulations.

Health and Safety Information

For detailed information on this product please refer to the relevant Material Safety Data Sheet.

Transportation

No regulations apply for the transport of this material. Not classified as hazardous for road, rail, sea or air transport.

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Silicone Sealant - 4 Hour Fire Rated

Product Data Sheet

Storage Conditions

Store dry and in a cool place (not above 35°C) and ensure sufficient ventilation.

Product Guarantees

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.

Quality Approvals

Pyroplex® Limited has a Quality Management System that meets the requirements of BS EN ISO 9001:2000, and is independently verified by BSI Quality Assurance under Certificate FM10371.

Technical Support and Guidance

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

Additional Information

The information contained herein is based upon the present state of our knowledge. Recipients of our 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.

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Silicone Sealant - 4 Hour Fire Rated

Technical Data Sheet

Issue Date:	1st October 2007	**Issue No.**	2	**Revision No.**	1
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1. Field of Application

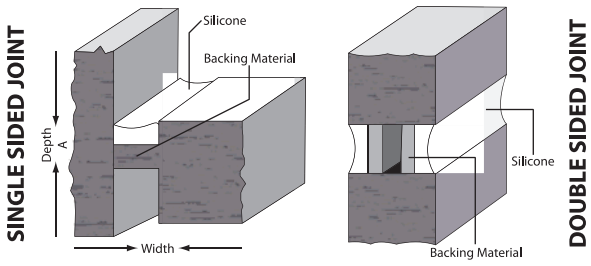
Pyroplex® fire rated silicone sealant is a one part, low-modulus, neutral cure and halogen free product. Ideal for sealing joints to prevent the passage of flammable gases and toxic smoke in compartment walls and floors. Sealing of pipe and cable penetrations in fire rated structures.

2. Advantages

- Excellent movement accommodation +/-25%
- Excellent adhesion to porous and non-porous construction substrates
- Non-slump
- Neutral curing
- Halogen free
- Excellent weathering resistance
- Long service life – no maintenance required
- Suitable for internal and external applications

3. Joint Configurations

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.



Ref.	Seal Width	Seal Depth	Joint Type	Backing Media	Integrity	Insulation
E	15mm	10mm	Single	PE	240 mins	180 mins
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J	25mm	15mm	Single	PE	240 mins	120 mins
L	15mm	10mm	Double	MW	240 mins	240 mins

Backing Materials	
PE	Polyethylene, with a nominal density of 0.35kg/m³
MW	Mineral wool, with a nominal density of 100kg/m³

4. Pyroplex® Test Reports

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 BS476: Part 20:1987, BS EN1366: Part 4: 2006 and other international standards.

Test Reports
WF Test Report No. 166576B

5. Structural Applications

Pyroplex® silicone can be used in wall and floors, of a solid construction.

Constuction Element	Fire Resistance Period (mm)	Minimum Thickness (mm)	Materail Types and Minimum Density
Wall and Floor	Up to 120 minutes	100	Solid masonry work*, with a density no les than 650kg/m³
Wall and Floor	Up to 240 minutes	150>	Solid masonry work*, with a density no les than 650kg/m³

Wall construction & fire resistance periods:

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

6. Consumption Guide

	Width				
Depth	**6mm**	**10mm**	**15mm**	**20mm**	**25mm**
10mm	5.2m	3.1m	2.1m	1.0m	1.24m
15mm	3.45m	2.1m	1.4m	1.0m	0.8m
20mm	2.6m	1.6m	1.0m	0.8m	0.6m

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

7. Installation Instructions

Ensure that all the surfaces are clean, dry, sound and free frost (external application) clean all joints thoroughly to ensure that the adhesion of the silicone to the substrate is not impaired.

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.

Install backing materials as required and commence to fill the cavity or void with silicone.

The joint should be immediately within 5 minutes of the application to ensure good a contact between the silicone and substrate. Tooling of the sealant also gives a smooth and professional finish.

Excess silicone should be cleaned off and non-porous surfaces whilst in an uncured state using a suitable solvent. Sealant adhering to porous surfaces should be left just until final state for cure is achieved and then removed by mechanical means.

Dispose of spent cartridges in accordance with local regulations.

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Silicone Sealant - 4 Hour Fire Rated

Technical Data Sheet

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8. Material Safety Data Sheets

For detailed information on this product please refer to the relevant Material Safety Data Sheet.

9. Maintenance and Installation Records

Since the product is not subject to routine and replacement programmes, Pyroplex® recommend that all firestopping materials are checked on a regular basis to ensure that the product remains integral. Replace and fit any damaged components to reinstate the fire resistance.

All Pyroplex® firestopping components have been manufactured in accordance with our ISO9001 accreditation FM10371 applies and are subject to routine factory production controls, including independent routine fire tests.

10. Product Guarantees

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.

11. Quality Approvals

Pyroplex® Limited has a Quality Management System that meets the requirements of BS EN ISO 9001:2000, and is independently verified by BSI Quality Assurance under Certificate FM10371.

12. Technical Support and Guidance

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

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Silicone Sealant - 4 Hour Fire Rated

Material Safety Data Sheet

Issue Date:	1st October 2007	**Issue No.**	1	**Revision No.**	1
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1. Field of Application

An elastic, neutral cure, single component, fire resistant silicone sealant for internal and external uses. Application by sealant gun.

2. Composition/Information on Ingredients

Blend of Polydimethylsiloxanes, amorphous silica, fillers, additives & crosslinker. Substances presenting a health hazard within the meaning of the CHIP regulations or which are assigned

Name	Conc. Range	CAS No.	Symbol	R-Phrases
Vinylsilane trimetghoxy	<5%	2768-02-7	Xn R	R10, R20
Titanium tetrabutanolate	<2%	5593-70-4	Xi	R10, R38, R41

Further information – During use, on contact with humidity in the air, the following are released:-

Name	Conc. Range	CAS No.	Symbol	R-Phrases
Methanol	max.3%	67-56-1	F T	R11, R23/24/ 25, R39/23/ 24/25
1-Butanol	<2%	71-36-3	Xn	R10, R22, R37/38, R41, R67

3. Possible Hazzards

Slightly irritating to eyes, respiratory system and skin. According to EC criteria, the product is not classified as a hazardous preparation.

4. First Aid Measures

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

Inhalation: Remove to fresh air, keep patient warm and at rest. If breathing has stopped, administer artificial respiration. Give nothing by mouth. If unconscious, place in the recovery position and seek medical advice.

Skin Contact: Remove contaminated clothing. Wash skin thoroughly with soap and water or a recognised skin cleaner. DO NOT USE SOLVENT OR THINNERS.

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 out mouth with water and obtain immediate medical attention. Keep at rest.

DO NOT induce vomiting.

5. Fire Fighting Measures

Extinguishing Media: Recommended: alcohol resistant foam, CO2, powder, water spray/mist.

Not to be used: non known

Recommendations: As the products contain combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health. Appropriate self contained breathing apparatus and protective clothing should be worn. Cool closed containers exposed to fire with water spray. Do not allow run off from fire fighting to enter drains or water courses.

6. Accidental Release Measures

Exclude non essential personnel. Avoid breathing vapours.

Refer to protective measures listed in sections 7 and 8. Collect spillages and place in a suitable container for disposal in accordance with the waste regulations (see section 13). Do not allow to enter drains or water courses. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the relevant Environment Agency.

7. Handling and Storage

HANDLING: Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in areas of storage and use. For personal protection see Section 8. Keep containers closed when not in use. Ensure good housekeeping and regular safe removal of waste materials. 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. Allowance will then have to be made for the immediate packaging to give the approximate gross weight. STORAGE: Observe label precautions - Store between 5°C and 25°C in a dry well-ventilated place. Keep away from sources of ignition and direct sunlight. Store separately from oxidising agents and strongly alkaline and strongly acidic materials. Keep out of reach of children.

8. Exposure Controls and Personal Protection

Exposure controls: Provide adequate ventilation during application and drying. Where practicable this should be achieved by the use of local exhaust ventilation. If this is not sufficient to maintain concentration of solvent vapours below the relevant Occupational Exposure Limit, suitable respiratory protection must be worn (see 'Occupational Exposure Controls' below).

Substance	Occupational Exposure Limits	Notations
Methanol	8 hr LTEL (1) ppm mgm^{-3}	250
1-Butanol	15 min STEL(2) ppm mgm^{-3}	20

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Silicone Sealant - 4 Hour Fire Rated

Material Data Sheet

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Exposure Limits:

(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).

(R) Recommended by suppliers.

(A) Allocated limits by analogy with similar materials.

(SK) Risk of absorption through broken skin.

(Sen) Capable of causing sensitisation by inhalation.

OEL's are taken from the current version of EH40, except those marked (R) or (A) which are assigned by the supplier of the substance.

Occupational Exposure Controls: All Personal Protective Equipment (PPE), including Respiratory Protective Equipment (RPE), used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH regulations.

Respiratory Protection: If exposure to hazardous substances identified in section 8 cannot be controlled by the provision of natural ventilation e.g. work in enclosed areas, exposure should be controlled, where reasonably practicable, by the use of mechanical exhaust ventilation; when this is not reasonably practicable, suitable respiratory protective equipment must be worn.

Hand Protection: When skin exposure may occur, advice should be sought from glove suppliers on appropriate types and usage times for this product. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Barrier creams may help to protect exposed areas of skin but are not substitutes for full physical protection. They should not be applied once exposure has occurred.

Eye Protection: Eye protection designed to protect against liquid splashes should be worn.

Skin Protection: Cotton or cotton/synthetic overalls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap and water or a recognised skin cleaner.

ALWAYS WASH YOUR HANDS BEFORE EATING, SMOKING OR USING THE TOILET.

9. Physical and Chemical Properties

Physical Stat:	Thixotropic Paste
Odour:	Slight
Flash Point:	117˚C
Specific Gravity:	1.35 - 1.45 @ 20˚C.
Solubility in Water:	Immiscible

10. Stability and Reactivity

Stable under the recommended storage and handling conditions (see section 7). In a fire, hazardous decomposition products such as smoke, carbon dioxide and carbon monoxide may be produced. Keep away from oxidising agents and strongly alkaline and strongly acidic materials to prevent the possibility of an exothermic reaction.

11. Toxicological Information

Not classified as harmful if swallowed. (By calculation)

The product has been assessed following the conventional method in CHIP and is classified for toxicological hazards accordingly. This takes into account, where known, delayed and immediate effects and chronic effects of components from short and long term exposure by oral, inhalation and dermal routes of exposure and eye contact. See sections 3 and 15 for details of the resulting hazard classification.

12. Ecological Information

There is no data available on the preparation itself. According to data on the components, it is considered to be:

Not Biodegradeable, Not potentially Bioaccumulable and Not have any known adverse effects on aquatic organisms tested. It is not classified as 'Dangerous for the Environment' according to EC criteria. Do not allow to enter drains or water courses or be deposited where it can affect ground or surface waters. The product is insoluble in water.

13. Disposal Considerations

Do not allow to enter drains or water courses. Wastes, including emptied containers, are controlled waste and should be disposed of in accordance with regulations made under the 'Control of Pollution Act' and the 'Environmental Protection Act'. Using information provided in this data sheet, advice should be obtained from the relevant Environment Agency whether the Special Waste Regulations apply. Dispose of spent cartridges in accordance with local regulations.

14. Transport Information

Transport within the Users Premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Onwards Transport Subsequent To Purchase: Transport to be in accordance with ADR for road, IMDG for sea and ICAO/IATA for air.

Proper Shipping Name: The product is not classified as dangerous for carriage.

15. Regulatory Information

The product is determined as not being dangerous according to the CHIP Regulations. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks as required by other health and safety legislation. The provisions of the Health and Safety at Work Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.

16. Additional Information

The information contained herein is based upon the present state of our knowledge. Recipients of our 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.

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