Geocel®

MS Firex® 921

HIGH PERFORMANCE ELASTOMERIC INTUMESCENT EXPANSION JOINT SEALANT

Firex®921 is a one part fire rated MS Polymer based sealant designed for sealing expansion joints and compression joints where frequent movement is anticipated as part of a fire resistant assembly. The sealant is formulated to intumesce on exposure to high temperatures to form a fire and smoke resistant joint seal.

Firex®921 is non-hazardous, will not emit halogenated by products under fire conditions and contains no raw materials known to have an oestrogenic effect on the environment. The sealant offers excellent levels of adhesion to most construction substrates and can be overpainted with oil, polyurethane or latex paints.

- Swells at high temperature (250°C) to give a fire and smoke resistant seal
- Four hour fire rating
- Environmentally friendly
- Paintable
- High movement accommodation
- Resistant to UV Light
- Elastomeric intumescent seal
- Abrasion resistant including foot traffic

PRINCIPAL APPLICATIONS

For sealing fire rated expansion joints in: -

- Public Buildings
- Sports Stadia
- Hospitals
- Schools
- Hotels
- Factories and offices
- Railway and airport terminals
- Off shore structures
- For high temperature (up to 200°C) sealing/bonding applications
- Oil terminal Bund walls
- Oil terminal floor slabs

SPECIFICATIONS

BS 476 Part 20 :1987

Warrington Test Report No. 101268B

BS ISO 11600-F-25HM

Manufactured under ISO 9001

JOINT DESIGN

When designing joints using **Firex®921,** the minimum joint width should be 6mm. Attainment of specific fire ratings is dependant on the joint configuration. Please refer to the fire rating table for more detailed information.

TECHNICAL DATA

Form	Smooth void free paste
Storage Life	12 months when stored at 23°C
Solids Content	100%
Colour	White, Grey
Application Temperature	5°C to 40°C
Service Temperature	-40°C to 150°C (short periods 200°C)
Skin Time	30 to 35 minutes at 23°C and 50% relative humidity
Cure Time	3mm per 24 hours at 23°C and 50% relative humidity
Hardness	Approximately 35 Shore A
Movement Accommodation Factor	50%

Specification writers: These values are not intended for use in preparing specifications. Please contact your local **Geocel® Sales Representative** prior to writing specifications on this product.

FIRE RATING

Warrington Fire Research Test Report No 105268B is available to illustrate that **Firex®921** will achieve in excess of 4 hours fire rating in specified joint configurations.

The fire ratings have been achieved during tests carried out to British Standard 476 Part 20 : 1987 and are specific to the conditions of test. They do, however, provide a good indication of the expected performance of the sealant in fire situations. Users should satisfy themselves that **Firex®921** is suitable for any proposed applications; specific testing of particular systems may be required. All substrates being used in a fire rated system must have an equivalent fire rating to achieve a nominated level of performance.

All tests were carried out with sealant on the fire side of the furnace within a simulated aerated concrete wall construction.

Width (mm) Depth (mm)	Backer	Seal Type	Rating
8 x 6	P/E	Double	4 hrs
10 x 10	P/E	Single	1¾ hrs
15 x 15	P/E	Single	22 mins
25 x 15	P/E	Single	30 mins
40 x 20	PE	Single	½
50 x 25	MW	Single	2

P/E = Closed cell polyethylene backer rod (Nominal density 35kg/m³)
MW = Mineral Wool (Nominal density 180kg/m³)

SURFACE PREPARATION

Ensure that all surfaces are clean, dry, sound and free from all loose dirt, dust, laitance, oil, grease or any other contaminants, which may impair adhesion.

Metal surfaces should be cleaned and degreased by wiping with a suitable preparatory solvent available from **Geocel®**.

Care should be taken to ensure that the slot is formed to the required depth and any expansion joint filler tightly packed.

A tight fitting cord or bondbreaker should be inserted at the base of the slot to ensure that the sealant only bonds to the joint sides. Closed cell polyurethane and mineral wool backing materials are specified in fire test data.

PRIMING

Firex®921 exhibits good primerless adhesion to most common construction substrates. However, due to the natural variability of porous materials, such concrete and natural stones, in order to confirm optimum adhesion, we recommend carrying out an adhesion test prior to commencement of any project. Please refer to **Geocel® Technical Service** for specific advice.

MASKING

Where necessary the joint edges can be masked with tape to prevent contamination of adjacent substrates and ensure a neat sealant line. The tape should be carefully removed immediately after tooling.

APPLICATION

Place aluminium sausage into a **Geocel® Avon Sausage Gun** and remove clasp, cut nozzle at 45° to required size, firmly extrude into joint slot ensuring complete contact with joint faces.

FINISHING

The sealant should be firmly tooled shortly after application to ensure good contact with joint substrates.

CLEANING

Excess sealant may be cleaned off tools and non porous surfaces using **Geocel® Eco Cleanse**. Remove **Firex®921** from hands using **Geocel® Universal Wipes**.

PAINTING

Cured **Firex®921** may be overpainted with water based paints, however due to the large number of coatings available, it is advisable to carry out a compatibility test before application. The drying time of alkyd resin based paints may increase, this may be overcome by use of a water based primer coat.
It should be noted that application of non fire rated paint coating to cured **Firex®921** may affect the fire rating result for a particular joint dimension. The fire ratings quoted have been performed on uncoated sealant.

PACKAGING

Firex®921 is supplied in 600ml sausages packed in boxes of 10.

ANCILLARY MATERIALS & EQUIPMENT

Geocel® Avon Sausage Gun

Geocel® Eco Cleanse

Geocel® Universal Wipes

Geocel® Surface Cleaner

HEALTH AND SAFETY

Health and Safety data sheets available on request.

TECHNICAL SERVICE

For further technical information, advice on suitability for specific applications, or detailed Health and Safety information, contact **Geocel® Technical Service.**

IMPORTANT NOTE Whilst all reasonable care is taken in compiling technical data on the company's products, all recommendations regarding the use of such products are made without guarantee since the conditions of use are beyond the company's control. It is the customer's responsibility to satisfy themselves that each product is fit for the purpose for which they intend to use it.

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