

Firex® 321

ONE PART ACRYLIC INTUMESCENT & ACOUSTIC SEALANT

Firex® 321 is a one part fire rated acrylic sealant designed for internal perimeter pointing of fire rated door and window frames where the integrity of fire walls or partitions needs to be maintained. The sealant is formulated to intumesce on exposure to high temperatures to form a fire and smoke resistant seal.

Firex® 321 is non-hazardous, will not emit halogenated by products under fire conditions and contains no raw materials known to have an oestrogenic effect in the environment. The sealant offers excellent levels of unprimed adhesion to most construction substrates and can be overpainted.

- Swells at high temperature to give a fire and smoke resistant seal
- Four hour fire rating
- Environmentally friendly
- Paintable
- Good unprimed adhesion to most common construction substrates

PRINCIPAL APPLICATIONS

For sealing internal joints with a fire rated requirement:

- Door and Window perimeter pointing
- Partition joints
- Perimeter pointing to fire wall penetrations
- Low movement block work joints

SPECIFICATIONS

British standard 476 Part 20 : 1987 (ISO 834)

Warrington Fire Research Test Report No. 101268A

Manufactured under ISO 9001

JOINT DESIGN

Firex® 321 should not be used externally or applied to building materials that bleed oils, plasticisers or solvents. When designing joints using **Firex® 321**, the minimum joint width should be 6mm. Attainment of specific fire ratings is dependent on the joint configuration. Please refer to the fire-rating table for more detailed information.



TECHNICAL DATA

Form	Smooth void free paste
Storage Life	24 months in original containers stored below 25°C
Solids Content	100%
Colour	White, Grey
Application Temperature	5°C to 40°C
Skin Time	30 to 45 minutes at 25°C and 50% relative humidity
Cure Time	2mm per 24 hours at 25°C and 50% relative humidity
Hardness	20 – 25 Shore A
Movement Accommodation Factor	20%

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. 101268A is available to illustrate that **Firex®321** 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®321** 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
6 x 6	P/E	Single	4 hrs
10 x 10	P/E	Single	4 hrs
15 x 15	P/E	Single	4 hrs
20 x 10	M/W	Single	4 hrs
8 x 6	P/E	Double	4 hrs
25 x 10	P/E	Double	4 hrs
25 x 15	P/E	Double	4 hrs

P/E = Closed cell polyethylene backer rod

(Nominal density 35kg/m³)

M / W = Mineral wool fibre

(Nominal density 100kg/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 an oil free solvent.

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 polyethylene and mineral wool backing materials are specified in fire test data.

PRIMING

Firex®321 exhibits good primerless adhesion to most common construction substrates. 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 is to be carefully removed immediately after tooling.

APPLICATION

Cut conical tip off cartridge end, screw-on nozzle, cut at 45° to required size and place into a **Geocel® Chilton Gun**, firmly extrude into 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®321** from hands using **Geocel® Universal Wipes**.

PACKAGING

Firex®321 is supplied in 380ml cartridges packed in boxes of 20.

ANCILLARY MATERIALS & EQUIPMENT

Geocel® Chilton 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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