

Expanseal* JFR



CONSTRUCTION CHEMISTRY

Elastomeric jet fuel resistant joint sealant

Uses

For sealing joints in concrete pavements on roads, airfield aprons, runways and taxiways, cargo terminals, warehouse parking areas and service roads.

Advantages

- Highly resistant to weathering, will not flow, bubble or blister at high temperatures
- Maintains resilient, rubber like properties at sub-zero temperatures
- Outstanding resistance to oil and jet fuel spillage
- High productivity from extruder minimizes contract period
- Resistant to jet blast and penetration from stones and hard debris
- Self leveling; produces uniform, neat joints

Standards compliance

Expanseal* JFR complies with the performance requirements of: ASTM D-7116, ASTM D-7369, ASTM D-3461, BS-2499 1973 Type A1 & B1

Description

Expanseal* JFR supplied as a single component polymer modified bitumen base product, heated in an approved oil-jacketed extruder prior to extrusion into prepared joints.

Specification

Where so designated on the drawing, joints are to be sealed using Expanchem Expanseal* JFR elastomeric fuel resistant joint sealant, base on especially selected bitumen and modified with special polymers and additives cure sealant is oil and jet fuel resistant.

Design criteria

Joints should be designed so that total movement in the width of the joint due to concrete shrinkage and thermal change does not exceed the 25% movement accommodation factor, expressed as a percentage of the joint width.

Typical examples are identified as follows:

| Joint width (mm) | Sealant depth (mm) |
|------------------|--------------------|
| 10 (min) - 15 | As width + 3 |
| 15 - 20 | 15 |
| 20 - 25 | 15 - 20 |
| 25 - 50 (max) | 25 (max) |

All joints should be sealed typically 5 mm below flush, however, this should be varied dependent upon the time of the year (i.e. ambient temperature) in which the application takes place, this is to ensure that the sealant does not protrude above the surface on joint contraction. New concrete should be allowed to dry for at least 14 days prior to the application of Expanseal* JFR.

Properties

| | |
|-------------------------------|-----------------|
| Specific gravity | : 1.26 |
| Movement accommodation factor | : 25% |
| Resilience (ASTM D3569) | : 65 - 75% |
| (ASTM D7116-05) | : > 80% |
| Service temperature range | : -20°C to 70°C |

Instructions for use

Joint preparation

The substrate to which Expanseal* JFR is to be bonded must be clean and dry and the joint profile sound. Arris repairs where required should be effected using a recommended Expanchem Fospak repair compound.

Remove all dirt, surface laitance, residual joint former or other contamination from joint faces by power wire brushing, grinding, sawing or grit-blasting. Blow all joints clean using dry, oil-free compressed air.



CONSTRUCTION CHEMISTRY

Joints which have been ground or wet sawn should be water jetted to ensure removal of all traces of cementitious slurry prior to continuing the sealant works. Manual wire brushing may only be used for the removal of filler boards. Blow all joints clean using dry, oil free, compressed air at a minimum pressure of 100 psi.

All joints must be completely dry prior to commencement of sealing works. Application can be undertaken when the substrate temperature is 5°C or above. Paper backing cord must be installed at the base of all joints.

Where existing joints are to be refurbished, all traces of joint sealing compound must be completely removed from the joint

Priming

Joints which have been sand / grit blasted, and properly clean and dry, must be prime with Expanprime P-3, allow primer to completely dry prior to the sealing of joint.

Heating / application

It is essential that the correct heating and application equipment is used to ensure successful performance of the sealant. Expanseal* JFR should be poured directly into an approved oil jacketed heater / extruder.

The material must then be heated to a minimum temperature of 135°C (275°F) and extruded into the prepared joints using an approved application lance. All initial material which has been contaminated with flushing oil must be discarded.

The maximum safe heating temperature is 150°C (300°F), and the maximum safe heating period should not exceed 6 hours. These limits must not be exceeded, failure to adhere to this instruction could result in the properties of the material being affected.

Cleaning

Application equipment should be cleaned thoroughly using Expanseal* flushing oil. Ignition sources associated with the heater / extruder must be extinguished prior to the use of flushing oil. Following application Expanseal* JFR can only be removed mechanically.

Any spillages of Expanseal* JFR or flushing oil should be absorbed immediately with sand, sawdust or other suitable absorbent materials. Dispose as per local laws.

Technical support

Expanchem Fospak offers a comprehensive range of high performance, high quality repair, maintenance and construction products. In addition, Expanchem Fospak offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance in locations all over the world.

Estimating

Supply

| | | |
|-----------------|---|----------------|
| Expanseal* JFR | : | 20 kg. drums |
| Expanprime* P-3 | : | 20 litre drums |

Coverage

Expanseal* JFR: Number of litres required =
$$\frac{\text{Joint width (mm)} \times \text{sealant depth (mm)} \times \text{joint length (m)}}{1000}$$

A further amount should be allowed for possible wastage.

Storage

Shelf life

12 months if stored in the original unopened containers in a cool dry place. Do not store in direct sunlight.

Precautions

Health and safety

Expanseal* JFR should not come in contact with skin and eyes or be swallowed. Avoid inhalation of vapours and ensure adequate ventilation.

Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye/face protection. Barrier creams such as Kerodex Antisolvent or Rozalex Antipaint provide additional skin protection.

Should accidental skin contact occur, remove immediately with a resin removing cream such as Kerocleanse Standard Grade Skin Cleanser or Rozaklens Industrial Skin Cleanser, followed by washing with soap and water. Do not use solvent.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice.

If swallowed, seek medical attention immediately, do not induce vomiting.



CONSTRUCTION CHEMISTRY

Fire

Expanseal* JFR does not readily support flame.

For further information, refer to the Product Material Safety Data Sheet.

Additional Information

Expanchem Fospak manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialized flooring materials

Expanchem Fospak additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Expanchem Fospak's 'Systematic Approach' to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Expanchem Fospak office.

* Denotes the trademark registered.

REGIONAL SALES OFFICES IN PAKISTAN:

Fospak (Pvt) Ltd.

Head Office

702, Business Avenue,
Block-6, PECHS., Shahra-e-Faisal,
Karachi, Pakistan.
Tel # +92-21-34528477, 34529859
Fax # +92-21-34522436
Email : info.khi@fospak.com.pk

Lahore Sales Office

2nd Floor Sarwar Shaheed Plaza,
Cavalry Ground,
Main Boulevard, Lahore Cantt,
Lahore, Pakistan.
Tel # +92-42-36675773
Fax # +92-42-36675838
Email : info.lhr@fospak.com.pk

Rawalpindi Sales Office

1st Floor,
Al-Harmin Plaza,
Main Murree Road,
Rawalpindi, Pakistan.
Tel # +92-51-4575746
Fax # +92-51-9290590
Email : info.isb@fospak.com.pk

Important note

Expanchem Fospak products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Expanchem Fospak endeavours to ensure that the technical information on this data sheet is correct at the time of printing, it is the customer's responsibility to satisfy himself, by checking with the company that this information is still current at the time of use, that the product is suitable for the intended application, and that the actual conditions of use are in accordance with those recommended. Because Expanchem Fospak has no control over the conditions of use of its products, all recommendations or suggestions regarding the use of these products are made without guarantee.

www.fospak.com