



8.05 XPERT FR SEALANT

Elastomeric Fuel Resistant Joint Sealant

PRODUCT DESCRIPTION

XPERT FR SEALANT supplied as a single component liquid polymer is heated in an approved oil-jacketed extruder prior to extrusion into prepared joints. When using XPERT FR SEALANT through the extruder, outstanding daily application rates can be achieved.

BENEFITS

- 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 petrol, 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.
- In excess of 20 years proven performance.

RECOMMENDATIONS

XPERT FR SEALANT is recommended for use in sealing joints in concrete pavements on roads, airfield aprons, runways and taxiways, cargo terminals, warehouse parking areas & service roads.

SPECIFICATION

Where so designated on the drawing, joints are to be sealed using XPERT FR SEALANT elastomeric fuel resistant joint sealant. XPERT FR SEALANT shall comply with the requirements of ASTM D3569-85, ASTM D3406-85, BS2499 164 and DTP specification for highway works 1986 clause 1016.

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)
9 (min) - 12	As width + 3
13 - 15	15
16 - 25	As width
26 - 40 (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.

TYPICAL PROPERTIES

CATEGORY	PARAMETERS
Specific Gravity	1.26
Movement accommodation factor	25%
Resilience	(ASTM D3569): 65 – 75% (ASTM D7116-05): >60%
Service Temp.	-20°C to 70°C

SHELF LIFE

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

COVERAGE

XPERT FR SEALANT: Number of liters required = Joint width (mm) x Sealant depth (mm) x Joint length (m) / 1000

A further amount should be allowed for possible wastage.

APPLICABLE STANDARDS

XPERT FR SEALANT complies with the performance requirements of: US Federal Specification SS-S-1614, 167b, 1401b 164 ASTM D7116-05, ASTM D3406-85, ASTM D3569 85, BS2499 1973 Types A1 and B1. DTP specification for Highway works 1986 clause 1016.

PACKAGING

XPERT FR SEALANT: 20 liters drum

PRECAUTIONS

XPERT FR SEALANT should not come in contact with skin and eyes or be swallowed. Avoid inhalation of vapors and ensure adequate ventilation.



DIRECTION FOR USE

Joint Preparation: The substrate to which XPERT FR SEALANT is to be bonded must be clean and dry and the joint profile sound. Arris repairs where required should be affected using a recommended XPERT 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.

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 prior to proceeding.

Priming: Joints which have been sand/grit blasted, and which are perfectly clean and dry, can be sealed without the use of a primer.

Heating / Application: It is essential that the correct heating and application equipment is used to ensure successful performance of the sealant. XPERT FR SEALANT 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 XPERT FR SEALANT flushing oil. Ignition sources associated with the heater / extruder must be extinguished prior to the use of flushing oil. Following application XPERT FR SEALANT can only be removed mechanically.

Any spillages of XPERT FR SEALANT or flushing oil should be absorbed immediately with sand, sawdust or other suitable absorbent materials. Disposal should be in accordance with local regulations.