

Expanseal* 300PU

Single component, gun & pouring grade, elastomeric polyurethane joint sealant

Uses

For the sealing and maintenance of joints in building, concrete structure, culverts, bridges, concrete runways, rigid pavement, hard standings, sealing of PVC membrane joints etc. available in two grades, gun and pouring, excellent fuel, water and chemical resistance, makes it particularly suitable for sealing areas where fuel and oil spillage might occur such as, runways, taxiways, vehicle parking areas etc.

Advantages

- A high quality product meeting international standards
- Forms a tough, elastic rubber-like seal
- Accommodates continuous and cyclic movement
- Excellent adhesion to most common substrates
- High resistance to ageing reduces physical damage due to climatic conditions
- Long maintenance free life.
- Resistant to chemical, salts and other chemicals

Description

Expanseal* 300PU is single component polyurethane based joint sealant, which cures to produce long lasting elastomeric seals with excellent extension recovery, adhesion and UV resistance properties. When cures Expanseal* 300PU can accommodate large cyclic movement over a wide range of ambient temperatures.

Expanseal* 300PU is available in two grades, pouring grades PG and gun grade GG. Gun Grade packed in ready to use 600 ml sausage/pouch and Pouring Grade is available in 4 Ltr. & 15 Ltr. Bucket, and available in grey & black color, special color can also be made as per requirement.

Standards Compliance

BS 4254 1983, BS 5212 1990
ASTM C-920 - 87, ASTM C-1382
U.S. Federal Specification TT-S-002230C

Specification

Joints shall be sealed using Expanseal* 300PU, single component polyurethane sealant, compliance to BS 4254 1983, and ASTM C 920 -87, U.S. Federal Specification TT-S-00227E November 1969 (amended 1970). Joints shall be prepared, prime and applied in accordance with the manufacturer specification and instruction.

Design criteria

Expanseal* 300PU may be applied to joints between 5 and 50 mm wide. Joints which are expected to experience cyclic movements shall be designed to an optimum width : depth ratio of 2:1 or as specified by design consultants/engineer.

To ensure that the sealant remains within its stated movement capacity (25% MAF), sealing slot widths should be designed in accordance with the recommendations of BS 6093.

The use of a surface primer is always required on porous surfaces. On non-porous surfaces a primer is not normally required except where glass or glazed surfaces are to be permanently immersed in water.

The sealing slot should be formed using a backer rod which supports the sealant during application and provides a bond breaker at the base of the slot to allow movement to be accommodated over the full width of the sealant.

Technical support

Fospak provides a technical advisory service for on-site assistance and advice on selection of joint sealant material.

Properties

Solid contents	: 100%
Density	: 1.35 kg/liter ± 0.05
Shore "A" hardness	: 18 – 25 @ 25 °C
Application temperature	: 5 – 50 °C
Movement accommodation factor	
MAF as per BS6093	: 25% butt joint 50% lap joint
Pot life	: 120 minutes @ 25 °C 60 minutes @ 35 °C
Setting time	: 36 hours @ 15 °C 20 hours @ 25 °C 2 hours @ 35 °C
Curing time	: 10 – 12 days @ 15°C
(Depend on sealant depth)	6 – 8 days @ 25 °C 3 – 5 days @ 35 °C
Available color	: Grey & Black
Flash point	: Over 100 °C

Instructions for use

The joint surfaces must be thoroughly dry, clean and frost free. Remove all dust and laitance by rigorous wire brushing / grinding or grit blasting. Remove all rust, scale and protective lacquers from metal surfaces. Remove any oil or grease with Expanchem Joint Cleaner.

Any expansion joint filler must be checked to ensure it is tightly packed and no gaps or voids exist at the base of the sealing slot before application.

Note: The use of a bond breaker is not required in expansion joints containing Expanfill* or Expanfill Rod* bitumen impregnated fiber board or polyethylene expansion joint backup cord. For construction or contraction joints a bond breaker tape or back-up strip should be used.

Where a particularly neat finish is required, mask the face edges of the joint before priming and remove immediately after tooling of joint sealant is completed.

Priming

Non-porous surfaces

Use Expanprime P21 on glass, ceramics and metals. The one part chemically active clear liquid is to be applied by brush or pad. One thin coat should be applied and allowed to dry for 2 to 5 minutes prior to sealant application.

Porous surfaces

Generally primer not required on good concrete surface, however, to get better adhesion use Expanprime P22. It is a one part high performance chemically active polyurethane liquid for brush application to prime for concrete, stone, brickwork, timber and unglazed edges of ceramic tiles. Apply one thin coat using a clean, dry brush, ensuring complete coverage. Avoid over priming resulting in an excess of primer in the base of the joint or application beyond faces. Expanseal* 300PU must be applied when the primer is tack free, that is after the evaporation of the solvent, if the primed surface is left for more than 2 – 3 days, apply another thin coat of primer and allow to dry/tack free

Steel surfaces

Iron and steel must be protected with an anti-corrosion primer prior to sealing, such as Expanprime P21

Mixing

Gun Grade

No mixing is required product is supplied in pre-packed sausage/pouch ready to open and use, a sealant gun can be used or apply by scrapper

Immediately after opening of sausage/pouch, apply sealant either using sealant gun or by any suitable application tool.

Pouring Grade

Immediately after opening of tin/bucket, mix material for 2 - 3 minutes until homogeneous mix is achieved.

Application

The sealant may be loaded into Sealant Gun after removing the nozzle and cap and pulling back the plunger rod. The nozzle cap is then replaced ready for application. In wider joints sealant may be poured directly from the tin by bending the side to form a pouring lip. Apply sealant into the sealing slot so that the finished level of the seal is recessed below the top surface as specified.

Cleaning

Clean equipment immediately after use with Expanchem Solvent 102*. Remove uncured sealant from the hands with 'Keroclense 22', 'Swarfega' or similar industrial hand cleanser.

Storage

Expanseal* 300PU: 12 months in original packing, stored in cool, dry conditions, i.e. not exceeding 30°C. Storage above this temperature may reduce shelf life.

Freezing point: Approximately - 8°C

Limitations

Over-painting of sealants is not recommended because of the inability of paint films to accept movement. However, if required, trials should be carried out to determine compatibility.

Estimating - packaging

Expanseal* 300PU GG	: 600 ml sausage/pouch
Expanseal* 300PU PG	: 4 & 15 liter Bucket
Expanprime P21 & P22	: 1 liter tin.
Expanchem Solvent 102	: 5 liter can.

Guide to Expanseal* 300PU quantities

Joint size in mm (w:d)	Liter per meter
10 x 10	0.100
15 x 15	0.225
20 x 10	0.200
20 x 15	0.300
25 x 10	0.250
25 x 12	0.300
25 x 15	0.375
30 x 25	0.750
30 x 15	0.450
40 x 20	0.800
50 x 25	1.250

Note:- These are theoretical yields. No allowance has been made for variations in joint dimensions or wastage

Coverage of primer:

1 liter of Expanprime* P 21 & 22 will be sufficient for 30 liters of Expanseal* 300PU (Dependent on joint size).

Precautions

Health and safety

Expanseal* 300PU, Expanprime* P21 & 22, and Solvent 102 may cause sensitization by inhalation and skin contact. Wear suitable protective clothing, gloves and eye/face protection. Barrier creams provide additional skin protection. Should accidental skin contact occur, remove immediately with a resin removing cream, followed by soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. Use only in well ventilated areas.

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.

For additional information see relevant Product Safety Data Sheet.

Fire

Expanprime* P21 & 22 and Expanchem Solvent 102 are flammable. Do not expose to naked flames or other sources of ignition. No Smoking. Containers should be tightly sealed when not in use. In the event of fire, extinguish with CO₂ or foam.

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