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SPECseal 200

HIGH PERFORMANCE TWO COMPONENT FUEL RESISTANT POLYURETHANE JOINT SEALANT

DESCRIPTION

SpECseal 200 is a high performance fuel resistant polyurethane sealant for use in horizontal joints in concrete subject to attack from fuels, chemicals and biodegradation. Its jet fuel and flame resistance makes it ideal for sealing joints where fuel, oil, hydraulic fluid and skydrol spillage may occur, such as airport fuelling locations, highway fuelling stations, ports and wharfage. It can also be used for wastewater structures, industrial plants, pavements, roads and walkways.

TYPICAL USES

- High movement joints
- Immersed joints
- Pavement joints subject to fuel spillage
- Joints in wastewater structures
- Floors subject to chemical spillage

ADVANTAGES

- High performance in extreme climates
- Low modulus and high movement accommodation
- Fuel, oil, hydraulic fluid and skydrol resistant
- Stable in high temperature high humidity conditions
- Self levelling
- Excellent application characteristics

INTERNATIONAL STANDARDS COMPLIANCE

British standard 5212:1990 - Types N, F & B
US Federal Specification SS-S-200E

DESIGN IMPLICATIONS

SpECseal 200 has a movement accommodation factor (MAF) of 25%. When establishing joint spacing and the dimension of the sealing slot it should be recognised that concrete pavements do not always move uniformly and that consequently

many joints may be subject to high movements. In this context reference should be made to BS 6093: 1993.

Joints in concrete pavements are subject to vehicular traffic. In view of this, joint sealants should always be recessed to ensure that at no time during the movement cycle will the sealant extrude above the level of the pavement surface.

SpECseal 200 is an elastomeric sealant and movement accommodation advantage can be gained by maintaining a slot width to depth ratio of between 1½:1 and 1:1. A sealant depth of 10mm should, however, be regarded as an absolute minimum to take into account normal tolerances associated with insitu concrete.

TECHNICAL DATA

Movement Accommodation Factor

Butt joints	25%
Lap joints	50%
Initial cure	24 hours @ 25 °C
Full cure	7 days @ 25 °C
Elongation @ break	633%
Shore 'A' Hardness	20
Elastic Recovery	95.2%
Density	1484kg/m³
VOC (USEPA 24)	35 g/l
Skimming time	5 hrs & 30 mins
Colour	Black

FUEL RESISTANCE

Petrol	Excellent
Diesel	Excellent
Aviation fuel	Excellent

APPLICATION

Joint Preparation

The joint sealing slots should be accurately formed. The concrete must be sound, dry and oil and frost free.

The sealing slot surfaces must be well prepared to remove dust and laitance by grit blasting or grinding.

The slot should be blown out with dry, oil free compressed air just prior to priming. 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 bond breaker should be inserted at the base of the slot to ensure that the sealant only bonds to the joint sides.

Priming

The prepared surface should be primed with **SpECseal 200 Primer**.

The contents of the curing agent should be emptied into the base component and stirred with a spatula until the product appears uniform.

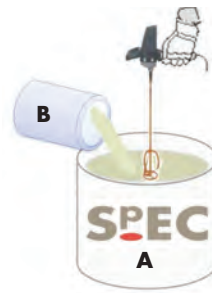
The mixed primer should then be applied to the prepared substrate by a stiff brush at 10 m²/litre.

If the primer appears to be absorbed into the surface easily, it will be necessary to apply a second-coat once the initial coat is tack-free.

SpECseal 200 must then be applied just after the primer becomes touch dry but before it has fully reacted. The sealant should be applied between 1 hour to 3 hours after priming. If the primer is left to dry longer than 3 hours the surfaces must be re-primed prior to applying the sealant.

Mixing

SpECseal 200 is supplied in 4 litre packs with the base and curing agent in separate tins ready for mixing.



Drain the total contents of part B liquid into the part A tin. Mix thoroughly for 4 minutes using a slow speed drill (300 rpm) fitted with a **SpECseal** paddle mixer.

Application

SpECseal 200 should be applied into the joint using a **SpEC** 600ml or 1,500ml solid barrel gun. In the case of wide joints the sealant may be poured directly from the tin.

Refer to application Code of Practice BS5212:1990 Part 2.

Care should be taken to ensure that the sealant is recessed in the joint such that at no time during the movement cycle will the sealant extrude above the level of the concrete pavement.

APPLICATION TEMPERATURE RANGE

10°C to 40°C

Avoid application at ambient temperatures below 5°C. At this temperature frost may still exist in the slot and the cure time may be extended.

EQUIPMENT CLEANING

Clean equipment with **SpECseal Cleaning Fluid**.

PACKAGING & YIELD

SpECseal 200

4.0 litre pack

SpECseal 200 Primer

4.5 & 15 litre pack with a theoretical coverage rate of 10 m²/litre/coat.

SpECseal Cleaning Fluid

1.25 and 5 litre pack

USAGE RATES

Length of joint in metres filled/1 litre of **SpECseal 200**

Depth (mm)	Width (mm)				
	10	15	20	25	30
10	10	6.7	5		
15	6.7	4.4	3.3	2.6	2.2
20	5	3.3	2.5	2.0	1.67
25		2.6	2.0	1.6	1.3

STORAGE & SHELF LIFE

SpECseal 200

To maintain the shelf life of 12 months the sealant should be stored in the original containers at temperatures between 5°C and 25°C.

SpECseal 200 Primer has a shelf life of 12 months when stored in original containers in a cool, dry environment.

HEALTH & SAFETY

SpECseal 200 contains Isocyanate. Avoid contact with skin and eyes and avoid inhalation of vapour. Wear gloves and eye protection.

Accidental contact with the skin should be cleaned immediately with soap and water and any eye contact should be treated by rinsing with copious amounts of clean water and medical advice sought.

SpECseal 200 Primer

Contact with skin and eyes should be avoided. It

is essential that adequate ventilation is provided and that all personnel avoid inhaling the vapours produced. If working is necessary in a confined area it is strongly recommended that sealed respiratory equipment is utilised.

Eye contact

Rinse with copious amounts of clean water and seek medical attention.

Skin contact

Rinse with copious amounts of clean water followed by thorough cleaning with soap and water.

DO NOT USE SOLVENTS

Ingestion

Seek immediate medical attention.

DO NOT INDUCE VOMITING

SpECseal Cleaning Fluid

Avoid contact with skin and eyes and avoid inhalation of vapour.

Wear gloves and eye protection. Keep away from flame and do not smoke.

FLASHPOINT

SpECseal 200	over 65°C
SpECseal 200 Primer	>60°C
SpECseal Cleaning Fluid	33°C

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