# Hyperseal DPS-200

One component hydrophilic sealant



#### **DESCRIPTION**

Hyperseal DPS-200 is an elastic water-swellable paste which is applied like a sealant. The hydrophilic properties of Hyperseal DPS-200 display good consistency and swell rate during repeated wet/dry cycling.

The expansion of the product when in contact with water creates positive pressure against the faces of the concrete joint, thus preventing the passage of water.

#### **APPLICATIONS**

- » Hyperseal DPS-200 can be used as an adhesive for bonding Hyperseal DP strips or as problem-solving hydrophilic sealant in difficult access areas including sealing around joints in pre-cast manhole, covers, cable, ducts and pipes, etc.
- Sealing around pre-cast segments.
- » Sealing between rough surfaces, e.g. slurry walls and concrete slabs.
- Sealing around H-beams and other penetration through concrete structures.
- » Sealing around conventional rubber and plastic waterstop to provide belt and braces seal before the concrete pour.
- Sealing in water towers and water storage tanks.

## **ADVANTAGES**

- Fast curing Enables early concrete pour and rapid return to service.
- Excellent seal on rough concrete: Gives improved water tightness.
- » Excellent adhesion Quick and easy to apply to a variety of damp and uneven joint surfaces remaining firmly in place during concrete pour.
- » Water swellable Has an unconfined expansion of 100%, thus producing a watertight compression seal.
- Durable Excellent wet/dry cycling retaining elastic character and swelling performance due to high tolerance of the cementitious environment.
- » Sustain an effective seal in submerged environments.

## TECHNICAL PROPERTIES @ 23°C, 50% RH:

Elastic water-swellable Form:

paste

Colour: Dark grey

Specific gravity:  $1.17 \pm 0.03$ 

Solid content: 96 ± 4%

5 to 40°C Application temperature:

Tack-free time:

ASTM C697

Elongation at break:

ASTM D412

≥ 700% @ 7 days

50 - 70 min

Tensile strength:

ASTM D412

≥ 2 MPa @ 7 days

Tear strength:

ASTM D624

10 kN/m

Unconfined swelling

capacity:

≥ 100%

Concrete pour: Allow between 2 - 8 hr

Steel H-beam joint Can be used as a continuous bead even around H-beams	
Concrete installation joint Can be used on rough surfaces	
Tunnel construction joint Gives a good finish with ease of installation	<b>[[</b> (((
Piping sleeve Can be used around tight joints	<b>##</b>



#### **LIMITATIONS**

- » Hyperseal DPS-200 should not be used for expansion joints for joints subjected to significant repetitive movements.
- » At temperatures below 5°C, the product cure time may exceed several days.
- » Hyperseal DPS-200 will establish a firm bond to the concrete however, as with any hydrophilic waterstop; care should be taken during concreting to avoid pouring directly onto the seal.
- » Hyperseal DPS-200 should be protected from heavy rainfall whilst curing to prevent premature expansion.
- Do not leave Hyperseal DPS-200 immersed prior to concrete placement.

#### METHOD OF INSTALLATION

- » Hyperseal DPS-200 should be applied to a dust-free concrete surface which can be uneven, rough, smooth, moist or dry.
- Place the product firmly in a barrel gun and cut 3 mm off the top of the sausage removing the crimp bead. Close the gun tube and install the nozzle.
- Extrude Hyperseal DPS-200 in a continuous bead of not less than 10 mm in diameter firmly onto the substrate to ensure complete contact.
- Ensure a minimum of 70 mm concrete cover to accommodate pressure developed during the swelling process.
- In underwater or very wet conditions (heavy rain), the concrete pour should begin within 2 hours of application to prevent material from premature swelling which may result in reduced effectiveness of the product.
- Ouring time decreases with higher temperatures and greater relative humidity. Hyperseal DPS-200 will cure in approximately 24 to 36 hours depending on ambient climate.

### **PACKAGING**

600 ml/sausage.

### **COVERAGE**

Each 600 ml sausage will provide enough material for approximately 6.5 m when gunned to form a constant 10 mm diameter bead.

# Hyperseal DPS-200

### **STORAGE**

Hyperseal DPS-200 should be stored in its original unopened package in cool, dry conditions at temperatures between 5°C to 30°C, away from direct sunlight and protected from rain and frost.

#### SHELF LIFE

Hyperseal DPS-200 has a shelf life of 12 months from date of manufacture. Any opened sausage should be used within 24 hours.

If these conditions are exceeded, DCP Technical Department should be contacted for advise.

#### **CAUTIONS**

#### **HEALTH AND SAFETY**

Hyperseal DPS-200 may cause sensitization by skin contact. Avoid contact with skin and eyes. Wear suitable gloves and eye/face protection. Use only in well ventilated areas.

For further information refer to the Material Safety Data Sheet.

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- » Concrete admixtures.
- » Surface treatments
- Grouts and anchors.
- Concrete repair.
- » Flooring systems.
- » Protective coatings.
- » Sealants.
- » Waterproofing.
- » Adhesives.
- » Tile adhesives and grouts.
- » Building products.
- » Structural strengthening.