

HYPERSEAL®-EXPERT-200

One component, extremely thixotropic, polyurethane-based, low modulus joint sealant ideal for use in high humidity conditions

DESCRIPTION

HYPERSEAL®-expert-200 is a novel low modulus expansion joint sealant, especially formulated to ensure bubble free cure even at very high temperature and humidity climatic conditions. HYPERSEAL®-expert-200, is the most thixotropic of all sealants in the Hyperseal range. It is highly recommended when very large vertical joints are involved, or when the application is carried out using an air driven gun.

It cures by reaction with atmospheric humidity to produce a joint sealant with a **50% joint movement accommodation factor** and excellent adhesion on substrates traditionally problematic for PU sealants, e.g. glass, aluminum, steel, polycarbonate, etc.. The extrusion rate and tooling of the sealant remain the same throughout a very wide range of temperature and humidity conditions.

COMPLIANCE WITH

- ISO-11600,
- Type F - class: 25LM,
- DIN-18540-F,
- ASTM C920,
- U.S. Federal Specification TT-S-00230C,
- Type II Class A.

RECOMMENDED FOR

Sealing joints in:

- Insitu concrete,
- expansion concrete plates,
- precast panels,
- brick and block work,
- water tanks and swimming pools,

- metal frames,
- aluminum windows and panels,
- irrigation channels,
- glass,
- granite & marble.

LIMITATIONS

- Not recommended for direct application on unsound substrates.



In this case the substrate must be primed with **MICROPRIMER™**, which will re-enforce the concrete and produce a strong durable substrate for sealant application.

- Highly porous substrates, dusty surfaces or poorly compacted concrete, must have their porous bond area surfaces thoroughly sealed to avoid the possibility of air bubbles being blown into the uncured sealant if the substrate temperature rises.

FEATURES & BENEFITS

- No bubbling/swelling upon curing in difficult climatic conditions.
- Excellent Thixotropy
- Excellent adhesion on almost any type of surface, with or without the use of special primers.
- Excellent extrusion, tooling and storage stability over wide range of climatic conditions.
- Excellent chemical resistance, suitable for sealing joints in swimming pools and chemically treated water.
- Low modulus, joint movement accommodation 50%.



Certified quality, environmental and occupational health & safety management systems:
ISO 9001/14001 & OHSAS 18001.

HYPERSEAL®-EXPERT-200

- Microorganism and fungus resistant.
- Excellent heat resistance, suitable for application where exposure to temperatures >60°C take place.
- Resistance to cold: The sealant remains elastic even down to -40 °C.

APPLICATION PROCEDURE

Clean joint thoroughly, and ensure that no oil, grease and wax contaminants, silicone remains are present.

For many applications, primer is not required. In the case of application on very porous substrates, bond area surfaces thoroughly to avoid the possibility of air bubbles being blown into the uncured sealant if the substrate temperature rises. The recommended primer is **MICROPRIMER™**.

Apply backing material such as open cell polyurethane or a closed cell polyethylene backing rod. Although both types of backing rod are recommended care must be taken when using the closed cell polyethylene rod that the outer skin not be punctured as in rising temperature conditions it may cause bubbling. Backing rod application is important as it ensures that the correct width to depth ratio is achieved provides a firm backing against which the sealant can be tooled off.

Slide the sealant into the applicator gun, cut off the very end of the sealant packaging and fit the gun with the nozzle that has been cut to deliver the right bead size.

Extrude the sealant into the joint ensuring that no air is trapped in the joint.

Tooling is recommended immediately after the application of sealant.

The ratio width to depth should be 2:1 subject to a minimum depth of 10mm

CONSUMPTION

Linear meters per 600cc sausage:

| WIDTH DEPTH | 5mm | 10mm | 15mm | 20mm | 25mm |
|----------------|-----------|-----------|----------|----------|------------|
| 5mm | 24 | 12 | | | |
| 10mm | | | 4 | 3 | 2.4 |
| 15mm | | | | | 1.6 |

PACKAGING

600cc sausage.
300 cc cartridge

SHELF LIFE

12 months minimum in the original packaging when stored in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible.



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TECHNICAL SPECIFICATIONS

| PROPERTY | UNITS | METHOD | SPECIFICATION |
|---|--|---|---------------------------------|
| Specific weight | gr/cm ³ | ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C | 1.45 |
| Tack free time, @ 77 °F (25 °C) & 55% RH | hours | - | 2 |
| Cure Rate | Mm/day | - | 2-3 |
| Service temperature | °C | - | -40 to 80 |
| Hardness | Shore A | ASTM D2240 / DIN 53505 / ISO R868 | ±27 |
| Modulus at 100% elongation | (N/mm ²) | ASTM D412 / EN-ISO-527-3 | 0.3 |
| Elongation | % | ASTM D412 / EN-ISO-527-3 | >700 |
| QUV Accelerated Weathering Test(4hr UV, at 60°C (UVB-Lamps) & 4hr COND at 50°C) | - | ASTM G53 | Passed (after 2000hr). |
| Thermal Resistance (100 days, 80°C) | - | EOTA TR011 | Passed |
| Toxicity | - | - | No restrictions after full cure |
| Resilience | % | DIN 52458 | >90 |
| Hydrolysis (8% KOH, 15 days @ 50°C) | - | - | No elastomeric property change |
| Hydrolysis (H ₂ O, 30 days-cycle 60-100°C) | - | - | No elastomeric property change |
| HCl (PH=2, 10 days @RT) | - | - | No elastomeric property change |
| Adhesion to concrete | kg/cm ² (N/mm ²) | ASTM D4541 | > 20 (> 2) |



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