

TECHNICAL DATA SHEET

MAY 2018

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INEX>BOND – MS Polymer elastic sealant/adhesive with a broad adhesion spectrum and high durability

Product Description

INEX>BOND is a high-quality, exterior-grade, multi-purpose, non-sag, paintable, one-part joint sealant/adhesive that cures on exposure to atmospheric moisture to form a durable elastic seal to joints that must accommodate movement.* In conjunction with recommended mechanical fixings (nails and screws). **INEX>BOND** will bond to most building materials including most timbers, metals, metal primers and paint coatings (one and two-part systems), ceramics and many plastics. **INEX>BOND** can provide an elastic water, gas & dust proof seal to 'moving' joints in many structures.

Typical Applications

- The primary application is to seal the joints between **INEX>FLOOR** boards when used in wet areas such as bathrooms, toilets, laundries, kitchens, balconies & decks.
- To seal control joints in **INEX>FLOOR** ceramic tiled floors in 'L' shaped rooms, etc.
- In light foot traffic areas it can be used to bond **INEX>FLOOR** boards to timber or metal joists.
- Sealing joints in building & civil engineering structures:
 - Above & below ground expansion joints & retaining walls
 - Construction joints
 - Joints between precast concrete elements
 - Expansion joints in building facades
 - Control joints in floors & walls
 - Sealing sanitary installations
 - Sealing between cables, ducting & pipes that penetrate floors & walls etc
 - Sealing around window & door frames
 - Joint sealing in water retaining structures tanks & reservoirs etc
 - Can provide a flexible seal to exclude drafts

Product Benefits

- A wider adhesion spectrum than similar polyurethane based sealant / adhesive to many surfaces without primers.*
- Bonds well to old well-cleaned **INEX>BOND** sealant, other MS polymer and most polyurethane sealants.
- Permanently elastic
- Odour free
- Solvent free
- Contains no PVC filler
- Non-corrosive
- Non-sagging in a 40mm wide joint
- Superior weatherability & minimal surface crazing compared to polyurethane sealants and adhesives
- Resistant to: water, dilute inorganic acids and alkalis, aliphatic solvents, oils and greases.*
- Many paint systems can be applied within 10 minutes to 4 hours of application or sooner in some cases [pre-testing advised].*
- Short 'cut-off string'
- Rot resistant

Typical Technical Data

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| Specific Gravity at 23°C | 1.54 ± 0.01 |
| Maximum permissible joint movement as a percentage of the joint width at the time of sealing | +/- 25% |
| Tooling time at 23°C and 50% Relative Humidity | ~30 minutes |
| Tooling time at 25°C and 70% Relative Humidity | ~23 minutes |
| Consistency (DIN EN 27390): | does not sag or slump in joints up to 40 mm wide |
| Cure depth after 24 hrs at 23°C and 50% Relative Humidity: | approx. 2.5mm |
| Cure depth after 48 hrs at 23°C and 50% Relative Humidity: | approx. 4mm |
| Shore A hardness after 3 weeks curing at 23°C and 50% Relative Humidity (DIN 53505): | approx. 26 ± 2 |
| Modulus of elasticity at 100% elongation (DIN 53504 S2) after curing 7 days at 23°C and 50% Relative Humidity: | < 0.5 MPa |
| Elastic recovery (DIN EN 27389) at elongation of 100%: | > 60% |
| Volume change (DIN 52451): | < 2% |
| Service temperature range: | - 40°C to + 90°C |
| Permissible application temperatures of substrate, sealant and air: | + 5°C to + 40°C |
| Colour: | Light grey |

Packaging

600 ml sausages; 12 per carton

290 ml cartridges; 12 per carton

Priming / Surface Preparation *

INEX>BOND bonds well without primer to many sound [not friable], clean, dry, surfaces free of dust, grease and oil.

Masonry, Brick, Concrete: Any surfaces contaminated with laitance (*a weak 1 to 2 mm thick layer of cement and aggregate fines on a concrete surface*), form release agents, curing membranes and hydrophobic water repellents should have their surfaces removed mechanically in the bond area.

Use a wire brush, angle grinder or similar followed by the removal of any particles and dust with oil free compressed air; in the absence of compressed air use a clean dry light coloured cloth moistened with metho or isopropyl alcohol IPA to

remove dust from the bond area or refer to Friable and Dusty substrates below. Otherwise the bond is likely to be as strong as that of an adhesive applied to the top layer of dry sand on a beach!

Wet Areas – For durable bonds in harsh service conditions such as persistently wet areas to **INEX>FLOOR**, concrete, masonry or timber prime bond areas with a 1 component epoxy primer, Galmet – Keytite Etch Primer or Watty! Killrust Heavy Duty Primer or similar. **INEX>BOND** can be applied 15 mins later at 23°C and 50% humidity.

Friable and Dusty substrates and their ‘cut’ edges of **INEX>FLOOR**, concrete or masonry – After removing any ‘loose’ surface and gross dust prime bond areas with a 1 component epoxy primer *Galmet – Keytite Etch Primer or Watty! Killrust Heavy Duty Primer* or similar. **INEX>BOND** can be applied 15 mins later at 23°C. This reduces the need for onerous ‘de-dusting’

Metals – aluminium, weathered galvanized steel, stainless steel – [*for bonding to copper and brass or bonding to other metals under harsh service conditions refer to UBIQ for technical advice.*] Bond areas must be free of rust, scale and weakly bonded oxide layers. Degrease bond areas using white spirits, acetone or MEK.

Plastics: polyester and epoxy resin based (FRP), rigid PVC, & many painted surfaces. Remove from the bond area any mould release agents using a clean, light-coloured cloth or grey scotch-brite pad moistened with isopropyl alcohol (IPA), methylated spirits or other solvent that does not dissolve or soften the plastic or coating.

On some non-porous substrates in harsh operating environments more durable adhesion may be possible using an adhesion activator, refer to Ubiq for technical advice.

Application*

Cut off the tip of the nozzle if necessary to suit joint width and gun the sealant into the joint with a suitable hand-operated or compressed-air gun, taking care to avoid air entrapment. When opening sausages either just ‘nick’ the sausage foil / skin near the metal clamp at the end of the sausage or cut off the clamp completely and discard it and the foil it holds plus any adjacent cured sealant. By doing this you will avoid the partly cut off clamp breaking away from the sausage and blocking the nozzle during application of the **INEX>BOND** sealant/adhesive.

If any Primers or Activators are used they must not have exceeded their open time but they must also have been applied for the minimum prescribed time, nominated in the primer’s instructions for use, before the **INEX>BOND** sealant is applied. Film forming primers must not be applied too thickly otherwise they may only skin over before the **INEX>BOND** sealant is applied, then under rising temperature conditions the trapped solvent may blow bubbles in the uncured sealant/adhesive.

Final cosmetic tooling of the joint sealant surface can be done before skinning with a spatula dipped in clean ‘white spirits’. If masking tape has been used along the edges of the joint remove it before the **INEX>BOND** skins to get a clean well defined edge to the joint.

Do not apply when the air and substrate temperature are outside the range + 5°C to + 40°C. Any tooling off of joints is recommended to be completed within the skinning time of 30 mins @ 23°C and 50% Relative Humidity.

Clean Up

Clean uncured **INEX>BOND** from tools etc by first scraping or wiping off with a cloth or paper tissue as much as possible. Then wipe with acetone, MEK or paint thinners etc. Cured **INEX>BOND** must be removed mechanically.

Shelf Life

A minimum of 18 months for sausages and cartridges from manufacturing date when stored in unopened original packaging in dry conditions below 30°C

Important Notes

- Once opened, packs should be used up completely within a few days of opening otherwise cured sealant will have to be removed from the nozzle etc before re-use can be commenced.
- **When used as an expansion joint sealant:** joint dimensions must be calculated to adequately accommodate the expected joint movement resulting from thermal and dynamic changes. Where appropriate, release tape or suitable flexible foam backer rods should be installed in the bottom of joints before they are sealed. For assistance in joint design please contact Ubiq's Technical Service Department.
- **When used as an adhesive:** Joint dimensions must be calculated to adequately accommodate the expected joint movement resulting from thermal and dynamic changes. When used as an adhesive, **INEX>BOND** should generally not be less than 2 mm thick unless the materials being bonded are identical. For assistance in joint design please contact Ubiq's Technical Service Department
- Joints that are sealed in a low humidity environment should be sprayed with a fine mist of water as soon as the tooling-off of the sealant is completed to accelerate the curing process and minimise the risk of early movement cracks in the uncured sealant/adhesive paste.
- **Resistant to:** water, dilute inorganic acids and alkalis, aliphatic solvents, oils and greases. This information is offered for general guidance only. For specific chemical resistance please contact UBIQ's Technical Service Department
- Do not use to seal joints or form bonds in swimming and spa pools.
- It should be understood that the low elasticity of any paint coating applied to this sealant / adhesive may lead to cracking of the paint film when the joint moves.
- Don't use turps for degreasing use acetone or MEK; for painted surfaces use methylated spirits or isopropyl alcohol.
- The compatibility of paint / coating systems [including powder coatings] should be checked before use. The best adhesion of the coating system to **INEX>BOND** will often be obtained when the coating is spray applied to unskinned **INEX>BOND** or within 4 hours of the skin forming. When the coating has dried /cured thoroughly the test sample should be exposed to a temperature of 80°C continuously for 7 days. If the coating remains in good condition and is not sticky and has good adhesion to the sealant after the test piece has been at room temperature for 24 hours following the 7 day test, the coating and sealant/adhesive are compatible.
- Not to be used for sealing or bonding to glass or transparent plastics where the **INEX>BOND** to mineral or organic glass interface is exposed to any UV radiation. An opaque cover strip or tape must be used to shield the bond from UV degradation.
- The onus is on the user or specifier to satisfy themselves with testing in the service environment that the performance of any bond or seal meets their expectation when the application is not for the specified use with **INEX>FLOOR** boards.
- If **INEX>BOND** is applied to painted or plastered surfaces, a sufficient drying time of the paint/plaster must be observed (typically 10 days) and then surface preparation.

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the current Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

Note:

The information, and the recommendations relating to the application and end-use of these products, are given in good faith based on our current knowledge and experience of the products when properly stored, handled and applied under normal industry conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.