



BE SURE. BUILD SURE.

Dictaflex Sealant PU FC

Fast Cure Polyurethane Sealant

Product Properties

- Class A Sealant – Total Joint movement total 50% ($\pm 25\%$)
- Non Hazardous – classification (NOHSC & ADG code / Aust Safety and compensation council)
- Low VOC.
- Good adhesion on both porous and non-porous substrates.
- Excellent durability.
- Good weathering resistance.
- Non-sag on vertical and expansion joints up to 30 mm width.
- Short skinning time.
- Paintable – see notes.
- Does not support fungal growth.

Areas of Application

- Construction joints
- Expansion joints on heavy and light precast concrete panels
- Expansion joints in buildings
- Joints in precast & tilt up concrete panels
- Perimeter sealing around window and door frames
- Curtain walls
- Sealing of penetrations in walls or floors
- Retaining walls
- Brick work, ceramics, stone, granite & marble
- Sanitary applications
- Other substrates including, anodised aluminium, steel, glass, dry timbers, some tile
- Adhering Aluminium Composite Panel to Cement Sheet, concrete or masonry
- Trafficable-stairs, roads ,runways and pavements

(Always test adhesion to substrate before starting project)

CLEANING PREPARATION

All substrates should be clean, sound, dry, dust, wax, oil and grease free. In most cases, no primer is required on most substrates. (Preliminary tests recommended). Any loose particles should be removed prior to application. If necessary, rub down metal surfaces beforehand. Clean the substrates after rubbing down. Allow the substrate to dry after cleaning / degreasing.

Masonry/Brick/Concrete: Any loose particles or laitance should be removed by hand or mechanical wire brush followed by blowing down with oil free compressed air. Use MC Bauchemie cementitious or epoxy mortars / coatings to repair any damaged joints.

Metals: Surfaces must be free of rust, scale or oxide films and should clean the substrate with, methyl ethyl ketone (MEK), acetone or grease remover. Apply MC primer if necessary.

Check the compatibility of the solvent used with the substrates. When using solvents, extinguish all sources of ignition and carefully follow the safety and handling instructions given by the manufacturer or supplier.

APPLICATION INSTRUCTIONS

Apply at a minimum temperature of +5°C to +35°C Dictaflex Sealant PU FC can be applied by means of a hand or air operated cartridge or sausage gun. When tooling the Dictaflex Sealant PU FC ensure a concave finish.

(For easier use we recommend the material is stored between +10°C and <+30°C prior to use.)

Dictaflex Sealant PU FC Sausage 600ml - Place in applicator gun, then cut just behind the aluminium clip (removing clip) to open sealant in foil. Fit the application gun with a suitable nozzle that has been cut to deliver the right bead size. If primers are used on joints, (which is generally applied after backer rods are in place)

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must not exceeded the open time and it must be thoroughly dry, otherwise in conditions of rising temperatures trapped solvent can blow bubbles in the uncured sealant.

Some porous substrates must have their porous area surfaces thoroughly sealed to avoid the possibility of air bubbles being trapped in the uncured sealant if the substrate temperature rises quickly.

Extrude the Dictaflex Sealant PU FC into the joint ensuring that no air is trapped in the joint. Wide joints will require more than one pass of the application gun to make sure that sealant is in full contact with the sides and bottom of the joint.

Tooling-off the sealant will assist by forcing the sealant into the joint against its sides and back up material, this will also break any air bubbles and expose any air pockets. Finally tooling of the joint surface can be done effectively with a tooling of spatula.

When masking tape is used for neatness make sure the tape is removed from sides of joints before the sealant starts to skin over or cures.

Always allow sufficient surface exposed to moisture. In conditions of low atmospheric humidity, it is advisable to spray the surface with a fine mist of water to promote early skinning once joint is finished.

JOINT DESIGN

Joints up to 12 mm wide, width to depth ratio = 1:1

Joints over 12 mm wide, width to depth ratio = 2:1

(Minimum joint depth 7mm: maximum joint width 35mm).

An approximate rule of thumb for joints in pre-cast concrete

Joint height (in metres) up to 2.0m / 2.0-3.5m / 3.5-5.0m / 5.0-6.5m / 6.5-8.0m

Joint width (mm) 10 15 20 25 30

To ensure that the correct joint width to depth ratio is achieved and also to prevent the sealant from adhering to the bottom of the joint, it is highly recommend to use a tight fitting, non-absorbent backing material such as an open cell polyurethane or closed cell polyethylene backer rod. Open cell polyurethane backer rod has the advantage of allowing ambient moisture access to the front and back of the joint simultaneously allowing faster curing. Caution – if using closed cell polyethylene backer rod, it can cause bubbling in uncured sealant as the temperature rises if it's outer skin is punctured. Do not use oil or tar impregnated backing materials.

ESTIMATING

One Dictaflex Sealant PU FC 600ml sausage will give the following.

Approximate - volume in linear meters.

Joint in mm	Approx. Linear Meters
12mm x 12mm	3.9
15mm x 7mm	4.1
20mm x 10mm	3.0
30mm x 15mm	1.3

(Figures given can change due to wastage)

PAINTABILITY

Dictaflex Sealant PU FC can be painted after fully cured. Paints and coatings containing solvents may cause the sealant to react and become tacky. Some coatings may crack or craze as a direct result of the environmental cyclical movement. It is always recommended to conduct field tests to ensure compatibility with the desired coating.

CLEAN UP

Clean up uncured sealant from tools after first scraping excess off with scraper then by rag or paper towel. Acetone can be used to remove thin film from tools, (if need). Cured material can only be removed by mechanical clean up.

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PRECAUTIONS / LIMITATIONS

Do not use Dictaflex Sealant PU FC

- In structural bonding or transparent surfaces when the bond line is directly exposed to UV.
- In chlorinated water such as swimming pools, spa's etc.
- Where it is constantly immersed in salt water
- Any material containing bitumen.
- For Structural glazing applications
- To cement based substrates within 28 days of initial pour or set.
- In trafficable joints greater than 6mm in width
- At temperatures below +5°C or above + 35°C.
- Exposed to water or alcohol before it has completely cured.
- Using wet tooling techniques, such as soapy water
- Don't applied less than 6mm in width and depth
- Composite metallic façade systems can be subject to significant daily cyclical movement due to temperature variations. Crimping and bulging of installed sealant before full cure may permanently deform the sealant finish prior to full cure, especially on northern & western elevations in full sunlight.
- For best results use opened cartridge or sausage the same day otherwise sealant in the nozzle will cure and have to be removed.
- When applying sealant, avoid air entrapment.
- Minimum joint width for caulking around window frames is 10mm.
- White colour material may yellow with age.
- In some cases sealant can be stained by interaction with other components used in the structure and finishes. (Test is always recommend first)
- Joints in low humidity environments should be sprayed with a mist of water as soon as tooling off is complete to accelerate the curing process and minimise the risk of early movement cracks.
- For specific chemical resistance please contact our MC Technical Service Department.
- Conduct a simple paint test first for compatibility.
- Where possible backer rod should be placed in a joint before it is primed.
- Do not puncture closed cell polyethylene backer rod during installation, this can lead to "out gassing".
- Open cell backer rod allows moist air access to the bottom of the joint so that the sealant can cure simultaneously from the front and back of the joint.
- Make sure you clean any old joint containing silicones sealants – removing all before applying Dictaflex Sealant PU FC. Consult our MC Technical Department.
- Alcohol containing solvents should not be used as a tooling aid, as these will inhibit the cure of polyurethane adhesives / sealants.
- Epoxy resin coatings should be fully cured prior to the application of the adhesive / sealant as the uncured coatings could inhibit the cure of polyurethane adhesives / sealants.
- Do not apply to damp or wet surfaces or joints.
- Do not apply if rain is eminent.
- Do not over work sealant surface.

STORAGE / SHELF LIFE.

Store sealant in original unopened sausage / cartridges in a dry location, temperature should not exceed 25°C for prolonged periods or lower than +5°C. Shelf life of product is 24 months from date of manufacturing.

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Technical Data for Dictaflex Sealant PU FC	
Appearance	Thixotropic Paste
Specific Gravity	1.18 ± 0.02
Shore A hardness (ISO R868 – 3 seconds)	45 – 50
Skin formation, superficial curing at +23°C and 50% RH	45 to 90 minutes
Curing at + 23°C and 50% RH	3-4mm / 24 hours
Modulus at 100% elongation (ISO 8339)	0.7MPa
Elongation at break (ASTM D 412)	> 700%
Movement Capability Percentage	±25%
Total Joint Movement	50%
Temperature Range, °C	-40°C to +80°C
Application temperature	+5°C to +35°C
VOC Rating – g/L	35
Sagging (ISO 7390)	None
Resistance to UV radiation	Good
Compatibility with paints	Water based: yes Solvent based: carry out compatibility test.

Product Characteristics for Dictaflex Sealant PU FC

Delivery	600ml sausage
Colour	Grey
Storage	Can be stored in cool and dry conditions for 12 months in original unopened packs.
Disposal	In the interest of the environment, please empty all containers completely & in accordance with local regulations.

Safety Advice

Please take note of the safety information and advice given on the packaging labels and safety information sheets.

Note: Bespoke vendor supplies. The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

Edition 12/18. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.

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