

J-SEAL® EX

TPER SEALING AND WATERPROOFING MEMBRANE



PRODUCT DESCRIPTION

J-Seal® EX TPER (Thermoplastic Elastomeric Rubber) Sealing and Waterproofing Membrane is for flexible sealing and waterproofing of expansion joints subject to high movement for use in many different types of joints in concrete and over cracks, in buildings, bridges, road-works, tunnels, water works, pre-cast structures, car parks and roof slabs.

J-Seal® EX TPER Sealing & Waterproofing Membrane is extruded from a specially compounded cross-linked TPER material that provides good resistance to UV and to certain chemicals, oils, fuels, salt and sewage water. **J-Seal® EX** can be fully submerged under water.

J-Seal® EX TPER Sealing & Waterproofing Membrane provides high performance features for long-term durability and integrity of the joint, for continuous use in low and high temperatures, and has excellent UV and weather resistance.



ADVANTAGES

- Simple and fast to install. Easy to cut, weld and join.
- A joint waterproofing membrane and joint sealing system in one.
- Physically strong with high elongation capabilities.
- Able to accommodate movement in longitudinal, lateral and vertical directions.
- Ability to be installed on many different types of substrates and for use in many different type of projects.
- Joining of product is by heat welding providing an integrated continuous membrane.
- Factory made intersection pieces available for intersecting joint locations allowing for fast and easy installation.
- Good chemical resistance to hydrocarbons, oils, fuels and acids.
- Resistant to constant exposure to water.
- Available in widths of 200mm and 300mm for use in small or wide joints.
- Can be used in conjunction with other waterstop systems as added benefit/protection to the structure and to the system.
- Installs at a wide range of temperatures and climatic conditions with resistance to UV.

Note : The products design and performance, its intended use, installation and final confirmation and approval for use, must be provided by the project's Design Engineer and Project Manager.



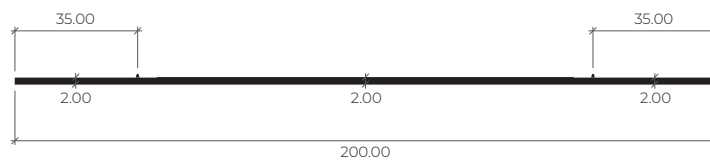
AREAS OF APPLICATION

- For use in non-moving or moving joints in concrete.
- For use as a flexible waterproofing membrane for expansion joints subject to large movement.
- A joint waterproofing membrane for use in tunnels, bridges and road works.
- Sealing of joints in water works for water tanks, reservoirs, dams, water treatment plants, sewage treatment plants and swimming pools, if used in-conjunction with an appropriate joint waterstop.
- Sealing of construction joints and expansion joints in buildings, podium decks and flat roofs.
- For use in wet areas where a flexible joint membrane can easily conform to joint corners in bathrooms and toilets.
- Trafficable joints in floor slabs if a suitable joint cover system is used as protection over the top.
- Sealing of joints in precast structures.
- Sealing of structural joints in facades.
- Over cracks in concrete.

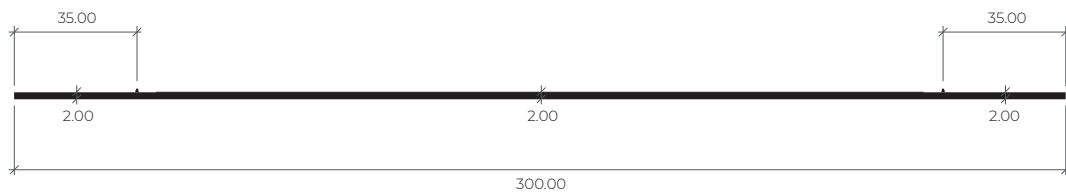
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PROFILE DRAWINGS



J-Seal® EX 200



J-Seal® EX 300



TECHNICAL FEATURES

COLOUR	Grey
PACKAGING	200mm = 30m roll 300mm = 20m roll
STORAGE CONDITIONS & SHELF LIFE	5 years from the date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions out of direct sunlight at temperatures between +10°C and +40°C
MATERIAL TYPE	Thermoplastic Elastomeric Rubber (TPER) with UV stabiliser
WELDING TEMPERATURES	Approximately 190°C - 200°C
SERVICE TEMPERATURE RANGE	-25°C to +95°C
APPLICATION TEMPERATURE RANGE	+5°C to +50°C



MEMBRANE WIDTH SELECTION

- J-Seal® EX 200 for joint widths up to 50mm
- J-Seal® EX 300 for joint widths up to 100mm

Note : If high joint movement is expected then refer to the required installation procedures stated under "Membrane Installation". Membrane should not be elongated more than 25% under tension from its original size.





PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	REQUIREMENT	RESULT
Tensile Strength	BS2782:320A	14.00 (minimum)	18.02
Elongation at Break, %	BS2782:320A	350 (minimum)	400
Hardness, Shore A	BS2782:365B	75 ± 5	72
Specific Gravity	BS2782:620B	1.33 ± 0.03	1.35
Water Absorption at 23°C (%)	ISO 62	0.15 (maximum)	0.15

Note: Refer to Corkjoint's in house Certificate of Analysis (COA) for test results pertaining to the above. Internal COA's are conducted on every batch of raw material that is used in the production of J-Seal® EX. Independent laboratory test results are also available upon request. Project specific material properties can be custom compounded to suit. Material properties can vary between batches.



APPLICATION PROCEDURES

SURFACE PREPARATION

The surface to receive the membrane must be prepared thoroughly before applying the adhesive and membrane, free from oil, grease, paint, dust, laitance and water. Make sure that the surface and joint edges are structurally sound, smooth, flat and free of any deep holes or protrusions. Rough surfaces or voids should be flattened mechanically with a grinder and deep voids or holes filled with a high-quality non-shrink grout or mortar.

If the surface has existing oil, grease, paint, solvent, form-oil, mould or algae present, sand blast or grind back to good clean, sound concrete.

For installation for an expansion joint, chamfer the joint edges with a 5mm to 10mm angle so to remove the sharp edge.

For new concrete application, the concrete must be a minimum of 28 days old.

ADHESIVE FOR BONDING

CORKJOINT CJ Epoxy Adhesive two-component, low viscosity, thixotropic epoxy adhesive (refer to individual product brochure for further information).

PREPARATION OF ADHESIVE FOR BONDING

Refer to **CORKJOINT** CJ Epoxy Adhesive Product Brochure for mixing directions.

MEMBRANE INSTALLATION

Once the surface is prepared in accordance to the above requirements, roll out the required length of membrane beside the installation area and cut it to length. Mark-out the position of the membrane onto the concrete surface so to indicate where the membrane and the CJ Epoxy Adhesive is to be applied. The CJ Epoxy Adhesive applied onto the concrete surface is to be applied 20mm further out from the outer edge of the membrane and in-line with the fixing section (35mm marker indicator) of the membrane on each side of the joint. Apply masking tape on to the surface of the concrete to achieve these termination lines for the CJ Epoxy Adhesive. Refer to Figure 1 under Installation Drawings.

If the membrane is to be applied for an expansion joint or movement joint where high movement is expected, then allow for the membrane to curve/loop down into the joint at the required depth so when the expected overall anticipated movement of the joint opening is achieved, it doesn't stretch or stress the membrane. Marking out of the membrane in position (as stated above) must be done after the required curvature of the membrane into the joint is allowed for. Refer to Figure 2 and Figure 4 under Installation Drawings.

(continued over)





APPLICATION PROCEDURES (continued)

MEMBRANE INSTALLATION

Apply a 2.0mm thick application of CJ Epoxy Adhesive onto the concrete surface on each side with a metal scraper or trowel. Once the CJ Epoxy Adhesive is applied, remove the internal masking tape application on each side, prior to applying the membrane.

Lift and lay the membrane into position and lightly push the outer fixing section of the membrane into the adhesive on each side so the adhesive pushes through the fixing holes. Apply another 2.0mm thick layer of CJ Epoxy Adhesive on top of the membrane fixing section and smooth it out accordingly with a suitable trowel assuring full compaction of the adhesive and membrane, and removing any air pockets. Immediately remove the masking tape from each outside edge. Refer to Figure 3 under Installation Drawings.

If the membrane is to have any floor covering, concrete topping, ceramic tiles or mechanical cover applied over it, then sprinkle a light application of fine quartz sand on to the top coat application of adhesive to create a rough surface for bonding. This is to be done prior to the second layer of masking tape removal and while the adhesive is still wet. Once the adhesive is dried, brush away any loose sand.

Protection from damage must be applied over the membrane during the application and finishing processes of the membrane and concrete surface coverings.

For installation of membrane over cracks apply the same installation procedures as above. Refer to Figure 5 under Installation Drawings.

INSTALLATION DRAWINGS



Fig. 1

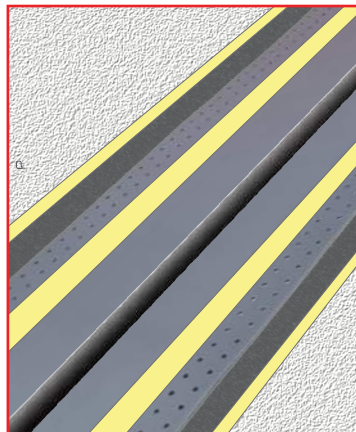


Fig. 2

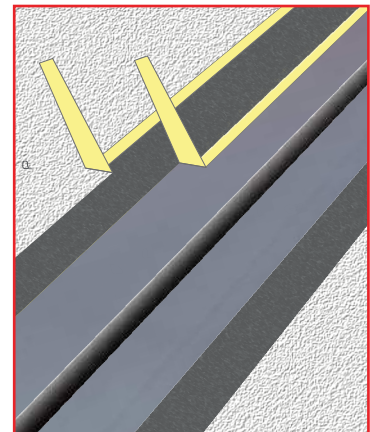


Fig. 3

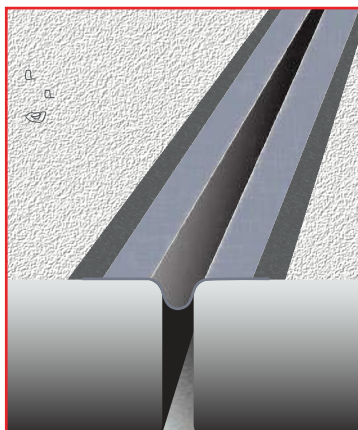


Fig. 4 (Expansion Joint)

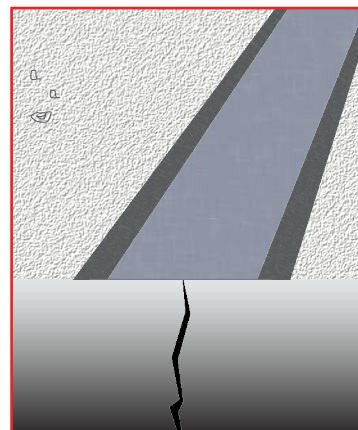


Fig. 5 (Crack)

(continued over)





APPLICATION PROCEDURES (continued)

MEMBRANE JOINING

If a length of membrane is required to be joined, then overlap one section of membrane to the other by 50mm and then heat weld the join overlap section by hot air welding. Be careful not to burn or char the membrane. Once the required melt is achieved, firmly press the membrane down on to the other with a hand roller or other type of suitable tool, applying firm hand pressure to remove any air pockets or creases. Allow the join to cool for 5 minutes and do not bend or pull the membrane. The above procedure is also used for joining of Intersection pieces. Factory made Intersection pieces are available by order. Refer to Corkjoint's Job Site Welding/Joining Procedures for further information.



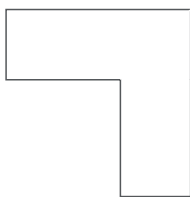
APPLICATION & USAGE LIMITATIONS

- Sharp object penetration, perforation loading or mechanical damage.
- Non-trafficable with direct traffic loading on to the membrane. If **J-Seal® EX TPER** is to be used for a trafficable joint, then a suitable joint cover system should be applied over for protection.
- High hydrostatic head pressures unless used in conjunction with an appropriate joint waterstop system. Refer to Corkjoint for further information on suggested waterstop system to consider.
- If **J-Seal® EX TPER** is to be applied in areas of direct water pressure (positive side) for a slab or wall joint, then the under-side of the membrane must be supported by an appropriate expansion joint fillerboard. For a wall joint application on the negative side, please contact Corkjoint for further information.
- Exposure to direct sunlight or UV for extended periods.
- Check compatibility for use with other joint systems, joint sealants or waterproofing membranes.

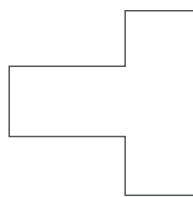


FACTORY MADE INTERSECTIONS

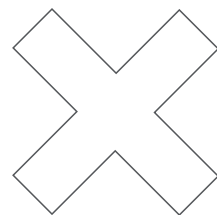
A wide range of standardised prefabricated intersection pieces are available allowing easy site welding of butt joints to **J-Seal® EX TPER** junction pieces. Customised pieces can be made to suit. In such cases, drawings must be provided giving exact dimensions and jointing details.



FLAT "L"



FLAT "T"



FLAT "X"



WRITTEN SPECIFICATION

Where shown in the drawings, the joint sealing and waterproofing membrane shall be **J-Seal® EX TPER** Sealing and Waterproofing Membrane (State profile number required) as supplied by **CORKJOINT**. The application/installation of the product must be in accordance with the manufacturer's recommendations.





HEALTH AND SAFETY INFORMATION

Joining of **J-Seal® EX** TPER is performed by heat welding which results in the discharge of hydrogen chloride mist and vapour. In confined spaces or in still air conditions, the use of a ventilation fan or suitable respirator should be used, and the advice and approval of the Site Safety Supervisor is essential. For further information or advice on health and safety precautions, safe handling, storage and correct disposal of products, please refer to the most recent product Safety Data Sheet (SDS), which is available upon request.



DISCLAIMER

The information and the recommendations relating to the application and end use of this product are given in good faith and are based on the information provided by the manufacturer of the product and/or the Company's current knowledge and experience in connection with the product when properly stored, handled and applied under normal conditions and no liability of final function at the job site is assumed. In practice, the differences in materials substrates and actual site conditions are such that no warranty in respect of merchantability of or fitness for particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written and/or oral recommendations, or from any other advice offered by the Company. The Company also has no express or implied knowledge of any particular purpose for which the product is required and any such information given will not be taken into account in the supply of this product. No responsibility or liability by the Company will be accepted for misuse, misreading or derivation from recommended guidelines in respect of this product and the user shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith. The information contained in our brochure may change at any time without notice. Any use of this product; **J-Seal® EX** TPER in any application should be approved as suitable for use/application by the Design Engineer and Project Manager.

Effective Date: 05 APRIL 2022

CORKJOINT (MALAYSIA) SDN BHD 383102-H

📍 No. 51, Jalan BRP 8/2, Bukit Rahman Putra Industrial Park, 47000 Sungai Buloh, Selangor, MALAYSIA

📞 +603 6148 8010

📠 +603 6148 8020

CORKJOINT (SINGAPORE) PTE LTD 200716724-K

📍 No. 10 Buroh Street #02-26 & 27, West Connect Building, SINGAPORE 627564

📞 +65 6455 9331

📠 +65 6455 8535

