



CONSOL FLEXIBLE JOINT MEMBRANE

PRODUCT DESCRIPTION

Consol Flexible Joint Membrane (Thermoplastic Elastomeric Rubber) Sealing & 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.

AREAS OF APPLICATION

1. For use in non-moving or moving joints in concrete.
2. For use as a flexible waterproofing membrane for expansion joints subject to large movement.
3. A joint waterproofing membrane for use in tunnels, bridges and road works.
4. 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.
5. The sealing of construction joints and expansion joints in buildings, podium decks and flat roofs.
6. For use in wet areas where a flexible joint membrane can easily conform to joint corners in bathrooms and toilets.

ADVANTAGES

1. Simple and quick to install. Easy to cut, weld and joint.
2. A joint waterproofing membrane and the sealing system in one.
3. Physically strong with high elongation capabilities.
4. Able to accommodate movement in longitudinal, lateral and vertical directions
5. Ability to be installed on many different types of substrates and for use in many different type of projects.
6. Joining of product by heat welding providing an integrated continuous membrane.
7. Factory-made intersection pieces are available for intersecting joints, locations allowing for fast and easy installation.
8. Good chemical resistance to hydrocarbons, oils, fuels and acids.
9. Resistant to constant water exposure.
10. Available in 200 mm and 300 mm for use in small or wide jointson small or wide joints.

PROFILE DRAWINGS





TECHNICAL FEATURES

Color	: Grey
Packaging	: 200 Mm = 30 m/Roll : 300 Mm = 30m/Roll
Welding Temperature	: Around 190 °C - 200 °C
Service Temperature Range	: -25 °C to + 95 °C

Application Temperature Range : + 5 °C to + 50 °C

Storage Conditions & Durability :

5 Years from date of production if properly stored in original packaging, unopened and undamaged, in dry conditions outside direct sunlight at temperatures between + 10 °C and + 40 °C

PHYSICAL PROPERTIES

PROPERTY	PROPERTY	TEST METHOD	RESULTS
Tensile Strength (N / mm)	BS 2782:320A	Min.14.00	14.58
Elongation At Break (%)	BS 2782:320A	Min. 350	370
Water Absorption at 23°C (%)	ISO62	Max. 0.15	0.15
Specific Gravity	BS 2782:620B	1.33 ± 0.03	1.33
Hardness, Shore A	BS 2782: 365B	75 ± 5 SHORE A (BSS 45 ± 10)	75 SHORE A (BSS 42)

APPLICATION PROCEDURE

Surface Preparation

The surface that receives the membrane must be thoroughly prepared before applying the adhesive and the membrane, making sure it is free from oil, paint, dust, laitance and water. Ensure that the surfaces and edges of joints are structurally sturdy, smooth, flat and free of any deep holes or protrusions. Rough surfaces or crevices must be mechanically leveled with a grinder and deep holes or holes filled with high-quality non-shrink grout or mortar. If the surface has grease, paint, solvents, form oil, mildew or algae, blast or grind it back into clean, healthy concrete. For the installation of gutter edge expansion joints, joints measuring 5 mm to 10 mm corners so as to remove sharp edges. For new concrete applications, the minimum age of the concrete is 28 days.

Adhesives For Ties

Consol Flexible Joint Membrane two-component, low viscosity, epoxy thixotropic adhesive (see product brochure for more information).

Preparation Of Adhesive For Bonding

See the EpoxyConsol Flexible Joint Membrane Adhesives Product Brochure for mixing directions.

Membrane Installation

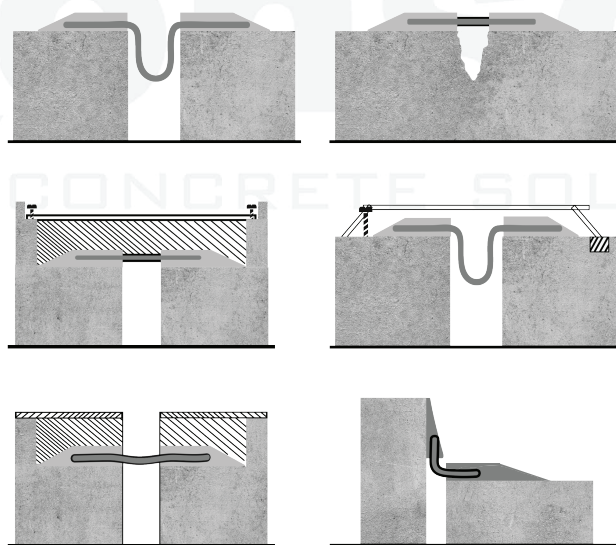
Once the surface is prepared in accordance to the above requirements, roll out the required length of membrane beside the installation area and cut it to length. Mark-out the position of the membrane in to the concrete surface so to indicate where the membrane and the adhesive is to be applied. The adhesive applied into the concrete surface is to be applied 20 mm further out from the outer edge of the membrane and in-line with the fixing section (40mm 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 adhesive. Refer to Figure 1 under Installation Drawings.



Membrane Installation

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. Apply a 2.0mm thick application of adhesive onto the concrete surface on each side with a metal scraper or trowel. Once the 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 layer of 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. Protection from damage must be applied over the membrane during the application and finishing processes of the membrane and concrete surface coverings.

Installation Drawings



APPLICATION PROCEDURES

Membrane Joining

If a length of membrane is required to be joined, then overlap one section of membrane to the other by 50 mm 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 Consol Job Site Welding/Joining Procedures for further information.



APPLICATION & USAGE LIMITATIONS

Sharp object penetration loading or mechanical damage. Non-trafficable with direct traffic loading on to the membrane. If Consol Flexible Joint Membrane 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 Consol for further information on suggested waterstop system to consider. If Consol Flexible Joint Membrane 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 Consol for further information. Exposure to direct sunlight or UV for extended periods. Check compatibility for use with other systems, joint sealants or waterproofing membrane.

WRITTEN SPECIFICATION

Where shown in the drawings, the joint sealing and waterproofing membrane shall be Consol Flexible Joint Membrane Sealing and Waterproofing Membrane (State profile number required) as supplied by CONSOL. The application/installation of the product must be in accordance with the manufacturer's recommendations.

HEALTH AND SAFETY INFORMATION

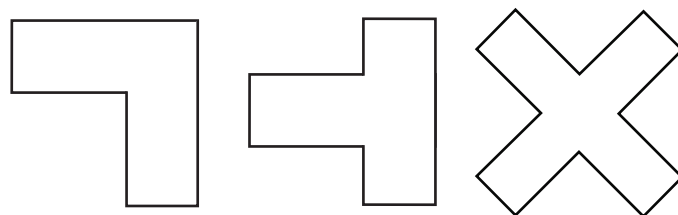
Joining of Consol Flexible Joint Membrane is performed by heat welding which results in the discharge of hydrogen chloride mist and vapour. In confined spaces or in still air conditions, the use of a ventilation fan or suitable respirator a, and the advice and approval of the Site Safety Supervisor is 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 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 whatsover, can be inferred either from this information, or from any written and 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 Consol Flexible Joint Membrane in any application should be approved as suitable for use/application by the Design Engineer and Project Manager.

FACTORY MADE INTERSECTIONS

A wide range of standardised prefabricated intersection pieces are available allowing easy site welding of but Consol Flexible Joint Membrane 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"