

# Data Sheet

## Waterproofing

Structural Waterproofing from Rawell



perforated polyester scrim



### RAWSEAL<sup>®</sup> HDB Type SF1 Structural (1m x 5m)

A factory prehydrated sodium bentonite membrane for the waterproofing of below ground structures in accordance with BS8102 : 1990 which is used for the protection of underground structures in areas of fluctuating ground water tables.

non-woven polypropylene geotextile

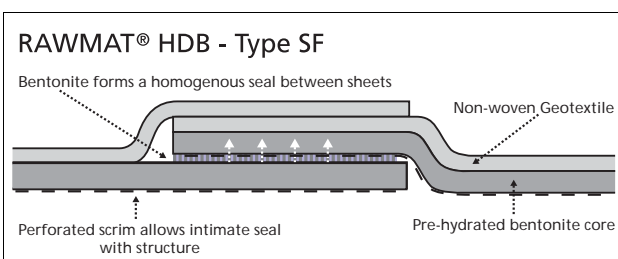
#### INSTALLATION

All projects must be assessed on an individual basis as installation details may differ from project to project. For project specific recommendations and CAD details contact the Technical Sales Department at Rawell.

The surface onto which the RAWMAT<sup>®</sup> HDB Type SF1 is to be laid shall be smooth concrete free of abrupt irregularities with all lumps removed and voids filled with mortar or RAWPASTE Mastic. Air hose the surface to clean laitance and dirt to allow a bond to form between the bentonite and the structure. Installation may continue during light rainfall providing the process continues until all of the RAWMAT<sup>®</sup> HDB Type SF1 is placed and covered with the correct depth of protective layer.



The RAWMAT<sup>®</sup> HDB Type SF1 rolls shall be laid with the non-woven perforated scrim in contact with the concrete surface to be waterproofed and the non-woven geotextile uppermost. Sealed laps will be achieved simply by overlapping the adjacent sheet, peeling the non-woven geotextiles from the clay core of the underside of the overlap and folding this over the lapped joint, overlaps are to be a minimum of 100mm. **Under no circumstances shall the non-woven geotextile be contained within the lap** (see detail). The RAWMAT<sup>®</sup> HDB Type SF1 is generally used across roof applications and walls. In vertical application the membrane should be overlapped using a "roof tiling" principle so that each subsequent sheet is overlapped from above to prevent debris from the backfilling process interfering with the bond between the membrane and the structure.



The vertical membrane shall be fixed by using RAWMAT<sup>®</sup> Soft Washer fixings applied 500mm apart and 100mm below the top edge of the sheet. Alternatively, the membrane can be fixed using Rawtite Rapid Bond adhesive at an application rate of one "pea sized" drop onto the face of the membrane every 400mm.

If necessary, please contact Rawell's Technical Sales Department for more information on fixing of RAWMAT<sup>®</sup> HDB Type SF1 .

For Applications where an immediate seal against hydrocarbons, contaminants or gases is required, apply a liberal application of RAWPASTE Mastic to the clay core within the joint prior to laying. RAWMAT<sup>®</sup> HDB Type SF1 does not require further hydration to form an effective barrier against these contaminants

Any necessary penetrations through the RAWMAT<sup>®</sup> HDB Type SF1 shall be sealed by the application of RAWSEAL<sup>®</sup> TR35 fillets and RAWPASTE Mastic, which is to be carried out in accordance with the manufacturer's instructions. Please contact Rawell for specific detailing information. Plant or equipment must be prevented from traveling on the RAWMAT<sup>®</sup> HDB Type SF1 until the approved protection layer has been installed.



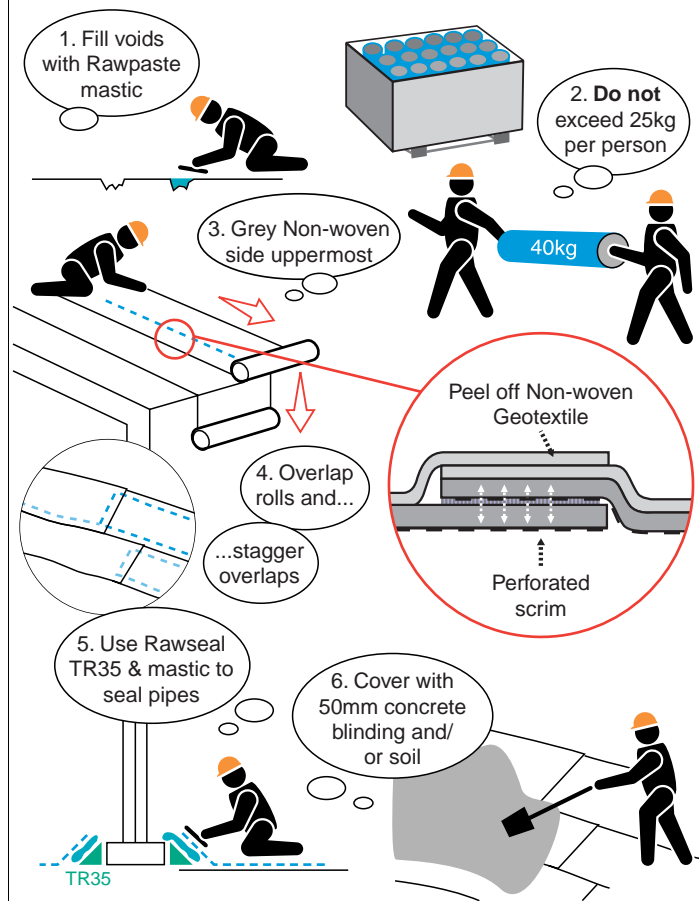
In the event of damage occurring to the RAWMAT<sup>®</sup> HDB Type SF1 the damaged area shall be cleaned, the clay core exposed by cutting back the non-woven geotextile and overlain by a patch of RAWMAT<sup>®</sup> HDB Type SF1 (non-woven side uppermost) at least 150mm larger in all directions than the damaged area. This shall be secured using RAWPASTE Mastic or RAWMAT<sup>®</sup> Soft Washer fixings. Care should be taken to ensure this repaired area is not displaced by the placement of the backfill.

At the end of each working day any exposed leading edges of the RAWMAT<sup>®</sup> HDB Type SF1 shall be protected by wrapping in polythene and secured to prevent displacement. When placing backfill, care shall be taken to ensure that the overlaps are not disturbed or displaced. The protection shall be placed in the direction of the overlaps and not against the flow of the joints.

For details of Rawell products and services visit [www.rawell.com](http://www.rawell.com) where you can find more information suited to your specific needs, or call +44 (0) 151 632 5771

## Type SF1 Horizontal Fixing

Application of Type SF1 to horizontal concrete roof slabs



## DESPATCH QUANTITIES

1 Roll = 1m x 5m = 5m<sup>2</sup> - Average Weight = 40kg  
 Approximate Roll Dimensions = 200m Diameter x 1,005mm Width  
 1 Pallet Box = 30 Rolls = 150m<sup>2</sup> - Average Weight = 1,250kg  
 Pallet Dimensions = 1,140mm x 1,140mm

19 Pallet Boxes (2,850m<sup>2</sup>) capacity per 40ft Road Trailer/Container  
 18 Pallet Boxes (2,700m<sup>2</sup>) capacity per 20ft Container

\* weight restrictions may vary from country to country due to legislation. Please obtain confirmation from Rawell on territorial transport legislation.

## HANDLING & STORAGE

RAWMAT<sup>®</sup> HDB Type S1 is rolled on 50mm cores. Each roll is sealed in airtight stretch film. The rolls are packaged on end into boxes, each box containing 30 rolls. The boxes are sealed with polythene box covers to weatherproof the box. Each box has a unique batch identification code. The RAWMAT<sup>®</sup> HDB Type S1 shall be stored and handled strictly in accordance with the manufacturers instructions, given below.

Palletised boxes may be stacked two high in their unopened state. The storage area shall be dry and stable. Any RAWMAT<sup>®</sup> HDB Type S1 damaged during the delivery, storage or handling shall be rejected and to be incorporated in the works. Once opened the rolls must be stored under cover or protected with weatherproof sheets to prevent rain damage and drying out. Any part used roll can be re-wrapped and can be re-used if it has been protected in plastic to prevent moisture loss or saturation from rainfall.

All information contained within this document is given in good faith and is correct to the best of Rawell Environmental Ltd.'s knowledge. This information is not legally binding and may be changed at any time without notice.

Rawell Environmental Ltd, Carr Lane, Hoylake, Wirral, Merseyside CH47 4AZ.  
 Tel. +44 (0) 151 632 5771 Fax. +44 (0) 151 632 0252  
 www.rawell.com E-mail. postmaster@rawell.com

v. 040914

## ADVANTAGES OF RAWMAT<sup>®</sup> HDB

- ✓ Used in conditions of constant fluctuation in water table
- ✓ Tough geotextile carriers – no need for protection boards
- ✓ Simple to install no need for specialist labour
- ✓ No tracking of liquid between membrane and structure
- ✓ Forms self sealing laps – no additional bentonite or taping joints
- ✓ “Active” system - bentonite self heals minor structural movement
- ✓ No extended curing or primers required – lay onto wet surfaces
- ✓ Simply nailed to the structure – self seals punctures
- ✓ Immediate gas & vapour barrier
- ✓ Unique environmentally friendly product - no solvents or VOC's
- ✓ Highly resistant to chemical degradation
- ✓ No further on site hydration required
- ✓ Natural clay base – will out live structure to which it's applied

## Type SF1 Vertical Fixing

Application of Type SF1 to a vertical surface

