

CI/SfB Vn6

PRODUCT DATASHEET

INTEGRITARIX® STRUCTURAL WATERPROOFING MEMBRANE

DESCRIPTION

Integritank® is a liquid applied, fully reactive, elastomeric membrane based on Methyl Methacrylate (MMA) resins that cure rapidly to provide a tough impermeable waterproof membrane. It is available in both spray and hand grades.

USES

Integritank® is designed to retain, exclude or protect structures from water, oils, fuels and many aggressive chemicals. With the spray grade outputs in excess of 2,000m² per day can be achieved. The hand grade version was specifically developed for application in small areas or where restrictive access prevents spray application. Typical applications include:

- Tunnels
- Balconies
- Podium Decks
- Basement tanking
- Roofs
- Concrete, masonry, asphalt or steel substrates requiring a chemical and/or abrasion resistant coating
- Storage tanks and silos.
- Secondary containment bund lining or earthen containment bunds (using a fabric carrier for the coating)
- Silage units
- Canals and culverts
- Sewage and sludge tanks
- Low-level radiation tanking and roofing applications.

FEATURES

- Approved by British Board of Agrément (UK), British Nuclear Fuels (UK) and CEMETE (France)
- Unaffected by high humidity and rapid cure even at low temperatures enabling all year round application on all continents
- Fast track and weather tolerant application all year round
- Fully reactive and does not contain solvents
- Able to carry load or traffic after one hour
- Resistant to ballast and backfill materials
- Long and effective life
- Impermeable to chloride ions
- Excellent chemical, abrasion and impact resistance
- Excellent UV and weather resistance
- Can bridge shrinkage cracks in concrete over a wide temperature range
- High bond strength to substrate
- Excellent intercoat adhesion
- Overcoating time not critical
- Can be applied to verticals and overhead
- On site quality assurance programme
- Applied only by authorised and trained contractors

TECHNICAL DATA

PROPERTY	VALUE
Application Temperature Range ¹	-5 to +40°C
Typical Overcoating Time	~ 60 minutes
Typical Tensile Strength (BS903: A2: 1995, ISO37: 1994; ASTM D412)	> 11.8 MPa
Typical Elongation at Break (BS 903: A2: 1995, ISO 37: 1994; ASTM - D412)	> 130%
Typical Tear Strength (BS 903: A3: 1995, ISO 34-1: 1994)	70N/mm
Low Temperature Flexibility (Mandrel Test MOAT 27: 5.4.2 1983) Unaged 56 days heated at 70°C 28 days water soak at 23°C	Pass at -25°C Pass at -20°C Pass at -25°C
Static Crack Bridging @ 0°C (DTp Appendix B: Technical Memorandum BE27 Tested To 2mm)	Pass
Typical Elongation at Break (BS 903: A2: 1995, ISO 37: 1994; ASTM - D412)	> 130%
Heat Ageing at 70°C for 1 year. (Equivalent to 32 years ageing at 20°C BS 903: A2: 1995, ISO 37: 1994) Tensile Strength Elongation at Break Hardness (Shore D)	No significant change
(BS 2782: Part 3 Method 365B: 1992 ISO 868: 1985)	56
Dimensional Stability (MOAT 27: 5.1.6.1 1983)	+0.23%
Methane Resistance (Wimpey Environmental Method)	0.03ml/m²/day/ atmosphere
Water Vapour Permeability @ 25°C, 75% RH (BS 3177: 1959)	3.36g/m²/day
Resistance to Aggregate Indentation (DTp Appendix B: Technical Memorandum BE27)	No damage
Chisel Impact at 23° and 0°C (DTp Appendix B: Technical Memorandum BE27)	No damage
Dynamic Ballast Resistance (181 kN/2x10 ⁶ cycles, SNCF)	No damage or leaks
Resistance to Static Indentation (MOAT 27: 5.1.10 1983)	L ₄
Resistance to Dynamic Indentation (MOAT 27: 5.1.10 1983)	I_3
Water Vapour Resistance @ 25°C, 75% RH (BS 3177: 1959)	61 MNsg ⁻¹

 $^{^{1}\ \}mbox{For temperatures}$ outside this application range please contact our Customer Services Department.

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Resistance to Water Pressure
6 metre head of water no leak
(DTp Appendix B: Technical Memorandum BE27)

For information about the chemical resistance of Integritank please consult our Customer Services Department.

SURFACE PREPARATION

It should be stressed that the success of any waterproofing system is dependent on the thoroughness of the surface preparation.

Concrete

New concrete substrates should be a minimum of seven days old. The substrate must be clean, dry and structurally sound. It must be free from laitance, oils and all other surface contaminants. Repairs to damaged concrete can be made using Metaset® Rapid Repair Mortar.

Steel

On steel surfaces all rust, dirt and contamination should be removed to expose bright metal to achieve a surface finish to comply with Swedish standard Sa 2.5.

For compatibility with other construction materials or where additives, cement replacement or curing compounds have been used please consult our Customer Services Department.

APPLICATION

Prime

The substrate must be primed with an appropriate Stirling Lloyd primer prior to application of the Integritank® membrane. A choice of primers is available depending on the type of substrate and weather conditions. They are usually applied using a brush or roller. Please consult the appropriate datasheets.

Membrane

Both grades of Integritank $\!\!^{\otimes}$ are applied in two colour-coded coats.

Integritank[®] Spray Grade is metered, mixed and spray applied using plural component spray equipment to give a measured wet film thickness of 1.25mm per coat. This will give a minimum dry film thickness of 1mm per coat over any peaks, arrises and irregularities in the substrate.

Integritank[®] Hand Grade is supplied in two grades - a self levelling grade for application to horizontal surfaces and a vertical grade. The mixed self levelling material is poured onto the substrate and spread using a gauged notched squeegee. The vertical grade is applied by brush. Both grades are applied in two even coats to give a minimum dry film thickness of 1mm per coat.

Either grade can be trafficked or loaded once it is fully cured.

COVERAGE

Primer refer to separate datasheet
Spray Grade 1.4kg/m²/coat
Hand Grade (Minimum) 1.4kg/m²/coat
Hand Grade Vertical Coat (Minimum) 1.4kg/m²/coat

These coverage rates are based on a smooth substrate. The required coverage rate will vary with surface texture and porosity.

CLEANING

All tools and equipment should be cleaned with Stirling Lloyd Solvent No.1 (Acetone) before the material is allowed to cure.

PACKAGING & STORAGE

Primer refer to separate datasheets

Spray Grade Membrane ² 48kg & 400kg kits Hand Grade Membrane ² 20kg (bulk) kits

Catalyst 20kg kits for on-site addition

All components of the Integritank® system should be stored in cool, dry, protected conditions, out of direct sunlight and in accordance with the relevant site Health & Safety regulations. Storage temperature must not exceed 25°C. Do not store near naked flames or foodstuffs.

Stored in unopened containers, under these conditions, the components have a shelf life of six months.

ANCILLARIES

Stirling Lloyd produce a range of products to compliment the $Integritank^{\otimes}$ system. These include:

- Metaset[®] a range of resin based rapid repair mortars.
- SL7000® a range of anti-carbonation coatings to provide structural protection whilst improving aesthetics.
- SL Smoothing Primer an MMA levelling primer.
- Sealants a range of flexible sealants for all joints and cracks.

HEALTH & SAFETY

The Material Safety Data Sheet must be read, understood and available on site before commencing work.

It is the Company's policy to take all reasonable steps to prevent injury to all property and personnel from foreseeable hazards. This extends to the public in so far as they come into contact with the Company or its products.

 $^{^2}$ Integritank® is supplied in both winter and summer and tropical grades. The winter grade is automatically supplied in the UK between October $1^{\rm St}$ and March $31^{\rm St}$. It has additional cold cure accelerator added at the manufacturing stage to increase the speed of cure at temperatures below $10^{\rm 9C}$. The catalyst levels should be adjusted in accordance with the ambient temperature during application.



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GENERAL INFORMATION

Integritank® is part of a wide range of specialist waterproofing, surfacing and repair materials manufactured and supplied by Stirling Lloyd. If you require any further information on this or any other of our products, please contact our Customer Services Department or visit www.stirlinglloyd.com.









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 The information presented herein is accurate to the best of our knowledge.

We pursue a progressive research and development policy and reserve the right to alter any of the details herein without notice. The information given must not be taken in any way to form a specification. All technical properties quoted are from laboratory prepared samples. We will not accept liability whatsoever arising out of the use of the information contained herein.

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