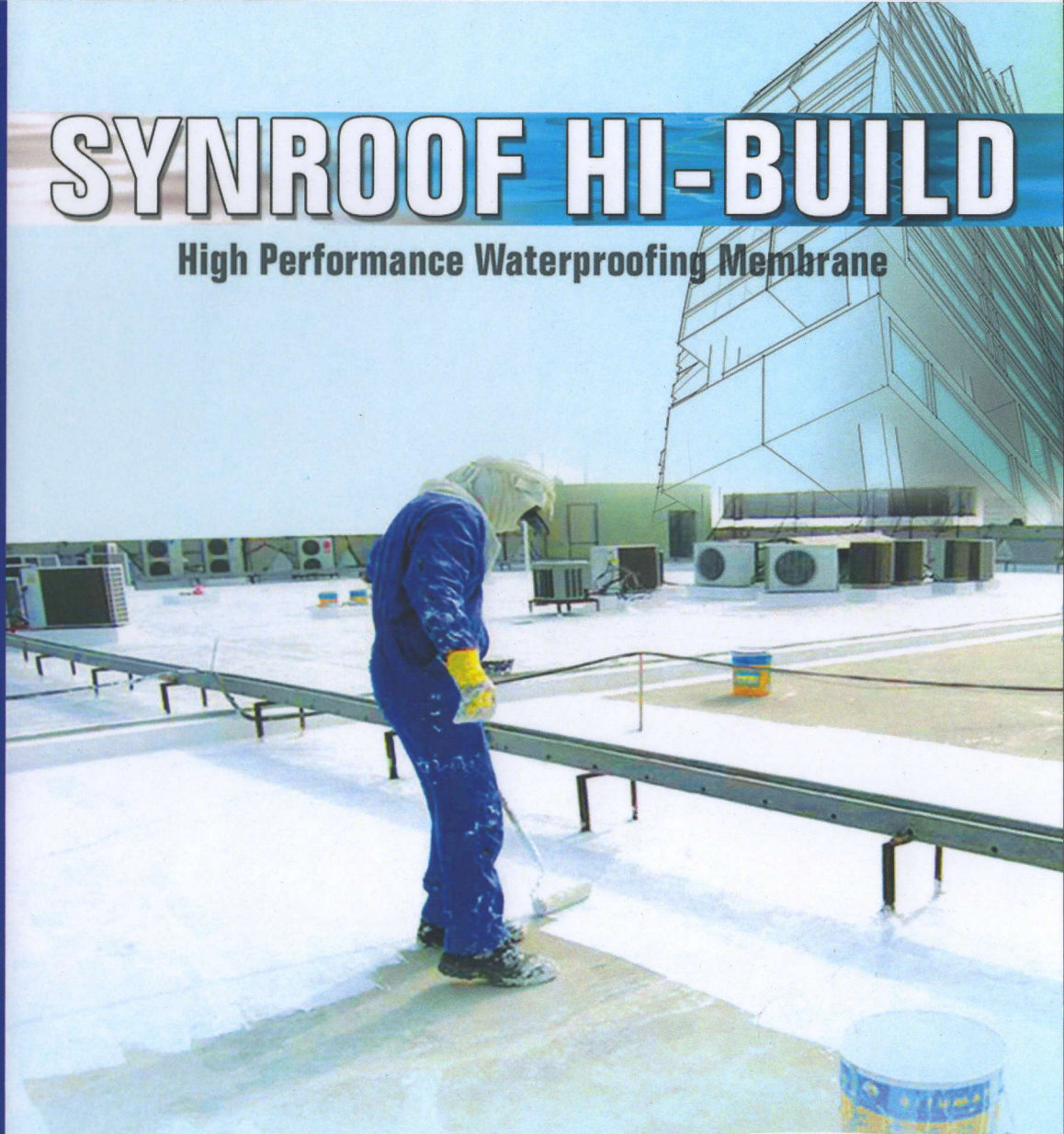


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SYNROOF HI-BUILD

High Performance Waterproofing Membrane



Seamless

Very Flexible!

Waterproof & Heat Insulator!

Easy to apply!
Long life!



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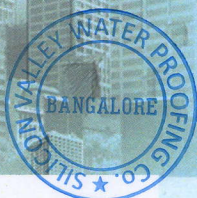
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GENERAL

SYNROOF HI-BUILD, an elastomeric, premium quality acrylic coating, may be applied by brush, roller, squeegee or spray equipment depending on site conditions. To spray, select a nozzle size of at least 0.028 in. first checking the spray equipment to ensure suitability.

All surfaces to be coated must be clean, dry, free from dust, dirt, oil and other contaminants.

Coverage varies depending on factors such as type and quality of substrates i.e. surface regularity and application method. Apply in separate coats, each at a right angle to the one before. Using a different colour for each coat helps ensure consistency of cover. The final coating thickness to be achieved depends on the requirements of the individual roof. A final dry film thickness between 0.5 and 1.5 mm may be built-up.

MULTIPLE APPLICATION

Concrete Roofs

Metal Deck

Wooden Substrates

Terrazzo Roof Tiles

Asbestos Roofs

Wet Areas

Exterior walls

SURFACE PREPERATION GUIDELINES

Surface preparation is a very vital issue, and this influences the integrity of the waterproofing system. Hence, care must be exercised when the preparation is done. This is very important when re-roofing over an existing old roof. All surfaces to be smooth, clean, dry and free from dust, rust and latience.

Concrete Roofs: Concrete and cementitious substrates must be well compacted with a wood float type finish, be at least 28 days old and well dried. Uncured concrete surface will have moisture trapped inside and will turn gaseous when temperature rises. This will lead to blistering and even delamination from the surface.

Metal Decks: Wire brush to remove moss, mildew, loose paint, and rust areas, then clean surfaces with a broom before priming. High pressure water brooming may be used, if necessary Clean and Remove all rust and apply rust inhibitive Primer. Follow this by applying metal Primer to all corroded surfaces.

Wooden Substrate: The surface for wooden surfaces should not be glossy and smooth. The surface should be roughed by chipping the substrate.

Terrazo Roof Tiles: Clean and repair damaged joints. Ensure that the tiles are firmly grouted. Remove all loose material.

PRIMING

Old asphalt surfaces and bituminous roofing felt. Cut felt blisters crosswise, dry and rebond with suitable adhesive. Allow to cure. Then prime cleaned surface with SYNROOF HB after diluted with 50% water.

Metal roofs. Concrete and Terrazzo tiled roof.. Following removal of all loose and other foreign material prime the area with synroof HB after diluting with 50% water

Other roofs / Walls. Should the roof / wall be affected by algae or fungal growth, use a stiff bristled broom to remove this before and apply primer coat by diluting SYNROOFH I-BUILD with 50% water.

APPLICATION

Primer with 50% dilution must be completely dry before the first coat is applied. SYNROOF HI-BUILD may be applied by soft brush, roller or spray gun. For spraying, SYNROOF HI-BUILD may be 40% diluted with water. Excess dilution may lead to weaker bonds with the substrate

1. Primer must be completely dry before first coat is applied – (Primer Coat)

2. Apply one coat of Synroof HB duly diluted with 30% water – (First Coat)

3. Lay 60 gsm thermally stabilized polyester over the first coat.

4. Immediately after laying the Polyester apply additional coat (Second Coat) of Synroof HB duly diluted with 30% water and all the surface to dry completely.

5. Apply the final coat (Third / Final Coat) of Synroof HB with the same dilution of 30% over the entire area.

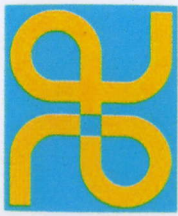
6. Recommended thickness is 1000 Microns.

CURING

Allow 24 hours between two coats. A final curing time of 48 hours is adequate at normal working temperatures. Ensure curing is complete before laying thermal insulation boards, mechanical protection and other coverings. Low temperatures and high atmospheric humidity will slow down the curing rate, and vice versa.

MECHANICAL PROTECTION

Accessible roofs. The installed Synroof Hi-Build can either be covered by insitu concrete screed or by thermal insulation. Place a non-woven polyester separation layer over the acrylic waterproofing membrane followed by appropriate thermal insulation boards. Then lay Kraft paper or polyethylene sheets as separation layer over the insulation boards and place the topping screed of 4 cm to 5 cm thickness or suitable cement tiles.



Non - Accessible Roofs.

Since this system is specially designed for the exposed application there is no need for any protection.

Application of thick coat at temperature below +5°C may result in incomplete film formation, with reduced elasticity and the possibility of crack formation.

SYNROOF HI-BUILD is resistant to light foot traffic however heavy traffic, high heel shoes, furniture, etc. will cause damage. In such cases, the membrane should be protected by tiles or screed.

Do not clean the cured SYNROOF HI-BUILD coating with brooms that have hard bristles, they may cause damage

Do not use SYNROOF HI-BUILD on areas that will be constantly submerged in water in which case the same the system should be covered with plaster

PACKING

20 kg metal pails and 240 kg drums.

STORAGE

Keep away from direct sunlight and preferably store below 30°C and above +5°C Protect from frost.

When stored in proper ventilated storage area, expect a minimum shelf life of two years.

ACROL | 50-E | R-01 | 00

| SL. No | Property | Typical Value | Test Method |
|--------|------------------------------------|--|---------------|
| 1. | Solid Contents | 64 + / - 1 % | ASTMD 1076 |
| 2. | Viscosity at 25 °C | 50,000 to 70,000 CPS | Brookfield |
| 3. | PH | 9 +/-1 | In-House test |
| 4. | Density | 1.30 +/- 0.05 Kg/Lit | ASTM D1475 16 |
| 5. | Application Temp. | + 5 (Minimum) | In-House Test |
| 6. | Curing Time @ 25 °C | Approx. 8 Hrs. for touch Dry | In-House Test |
| 7. | Service Temperature °C | Approx. + 5 °C to 100 °C | In-House Test |
| 8. | Tensile strength N/cm ² | 480 | ASTM D 412 |
| 9. | Elongation at break % | 440 | ASTM D 412 |
| 10. | Hardness shore A | 68 | ASTM D 2240 |
| 11. | Permeability | Pass | ASTM E 398 |
| 12. | Dry peel Adhesion lbs/sq.in | 65 | ASTM C 297 |
| 13. | Flexibility | No cracking of film after 2000 hrs. accelerated weathering conditions and flexed 180 degrees | In-House Test |
| 14. | UV Resistance | 2000 Hrs. No Deterioration No Color Fade | ASTM D 822 |
| 15. | Colors | Satin White and Grey | |
| 16. | Coverage | For 1000 Microns thick dry Film use 1.10 Kg/M ² | |

*Incorporation of a Reinforcement considerably increase certain dry film properties.

The Information given on this Technical Data Sheet reflects typical median properties based on laboratory test and practical experience subject to the tolerance levels of UEAtc Directives. However, as the product is often used under conditions beyond our control, we cannot warrant anything but the product itself.

THIS PUBLICATION AUTOMATICALLY SUPERSEDES ALL PREVIOUS PUBLICATIONS RELATING TO THIS PRODUCT.

The Power to Perform

تفوق في الأداء

MATERIAL SAFETY DATA SHEET (SYNROOF HB)

1. Product and Company Identification

Product Brand Name : Synroof Hi-Build
 Product Description : White Liquid acrylic coating
 Use : waterproofing
 CAS Name / Number : N/A
 Manufacture Details
 Company Name : BITUMAT CO.LTD
 Telephone : +966 13 8121210 / 8121213
 Telefax : +966 13 8121190 / 8121189
 Emergency Contact : R&D - Tel : 8121148 / 8121149

2. Product Composition

| Component | Cas.No. |
|--------------------------|-------------------|
| Styrene acrylic emulsion | N/A-Non-Hazardous |
| water | 7732-18-5 |
| calcium Carbonate | 1317-65-3 |
| Titanium Dioxide | 13463-67-7 |
| Ammonium Hydroxide | 1336-21-6 |
| Rheological Additives | N/A (Mixture) |

3. Hazard Identification

Inhalation : None Currently known
 Eye contact : None Currently known
 Skin Contact : None
 Currently known Ingestion : None Currently known
 Over Exposure : None Currently known
 Long Term Exposure : None Currently known
 other Health hazards : None Currently known

4. First Aid Measures

Skin Contact : Wash with water when wet and use proprietary hand Cleaner when dry. Remove any contaminated clothing.
Eye Contact : Rinse with copious amount of Clean Fresh water. Seek medical advice if irritation persists.
Ingestion : Seek medical advice immediately.

5. Fire Fighting Measures

Flash Point : Not applicable - water based system.
Explosive Limits. : Not established
Extinguishing Media : The Material will not burn until the water evaporated. for residual solids, use water jet, carbon dioxide, dry chemical powder or universal type foam fire extinguishers.
Special fire Fighting Procedures : None
Explosion Hazards : None
 (NFPA)National Fire Protection Assn. 203M UL : 790

6. Accidental Release Measures

Spillage or accidental releases :
 Major spills should be collected for disposal. minor spills may be flushed to sewer, if the local regulations permit.
Waste Disposal Method :
 The Material is not classified as a hazardous waste. Bury in suitable landfill as permitted by local regulations.

7. Handling and Storing

Handling and Storing :
 Avoid breathing vapours. Storage and handling area should have sufficient ventilation . keep the container closed when not in use . Store under cover above +5°C, away from direct sunlight and heat source. protect From high temperature.

8. Exposure Controls / personal Protection

Respiratory Protection : Use masks when spraying
Eye Protection : Use safety glasses
Protective Gloves :
Recommended Ventilation : Working area should have Sufficient ventilation

9. Physical & chemical Properties

Appearance : White or coloured flowable liquid
Odour : Slight ammoniacal odour
Bolling Point : 100°C
Freezing Point : 0°C

Specific Gravity : 1.28
Solubility in water : Fully miscible with water
Percent of Volatiles : 36%
Vapour Pressure : Same as water

10. Stability & Reactivity

Stability : Stable under normal temperatures and pressures.
Hazardous Polymerization : Hazardous polymerization not indicated.
Conditions to Avoid Incompatible Materials : Excessive heat and freezing
Hazardous Decomposition Products : Strong oxidizers and acids
 : No known issues under normal usage conditions

11. Toxicological Information

Acute toxicity : No record of acute effects found. Toxicity evels not established.
Skin and eye contact : if the product adheres to skin, irritation may
Chronic toxicity : No record of chronic effects found. Toxicity levels not established
Carcinogenicity : No record of carcinogenicity effects found. Toxicity levels not established.
Mutagenicity : No record of Mutagenicity effects found. Toxicity levels not established.
Reproductive hazard : No record of reproductive hazard found. Toxicity levels not established

12. Ecological information

Aquatic toxicity-fish : May have short-term environmental effects. Contain, Monitor & remove.
Aquatic toxicity-daphnia : May have short-term environmental effects. Contain, Monitor & remove.
Aquatic toxicity-algae : May have short-term environmental effects. contain, Monitor & remove.
Biodegradability : May have short-term environmental effects. contain, Monitor & remove.
Bio-accumulation : Based on its structural properties, the product is not biologically available. Accumulation in organism is not to be expected.

13. Disposal Considerations

For large quantities : Refer to waste management Authority. Dispose of material through a licensed waste contractor. normally suitable for incineration by an approved agent. For small

quantities : Do not pour leftover paint down the drain. Unwanted paint should be brushed out on newspaper, allowed to dry and then disposed of via domestic waste collection. Empty paint containers should be left open in a well-ventilated area to dry out. when dry, recycle the container via domestic recycling programs with local autorites. check with local council first.
Disposal of Packing : Incinerate or landfill.

14. Transportation Information

Transportation :
 SYNROOF HI-Build is not classified as Hazardous for transporation.

15. Regulatory Information

Labelling according to KSA directive : not required
 symbol and indication oh hazards contains: not required
risk phrases :
Safety phrases :
Special labelling :
National regulation : KSA
Further Information : Keep container closed

16. Other Information

The Information contained in this safety data sheet is intended to assist in the use of above product without risk to safety or health and is based on current knowledge and experience. The data does not signify any warranty with regard to the products properties.



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