CHEMFIT RAINGARD

Flexible, Liquid Applied, Single Component Acrylic Based Ready-to-Use Waterproofing and Heat Reflecting Membrane – For Waterproofing Roofs, Impervious Coating on Roofs & Non-Trafficked Areas

PRODUCT DESCRIPTION

ChemFit Raingard is a flexible, liquid applied, single component acrylic based ready-to-use waterproofing and heat reflecting membrane. This premium elastomeric coating cures to form a seamless, durable, and highly reflective membrane that protects against water ingress, UV degradation, and thermal cycling. The heat reflecting properties help reduce surface temperatures, minimizing thermal expansion and contraction while contributing to energy savings. It is a breathing membrane, allowing moisture vapor to pass through while remaining impervious to mass water penetration. Ideal for waterproofing roofs and other non-trafficked exterior surfaces.

PRIMARY APPICATIONS

ChemFit Raingard is recommended for use in conditions such as:

- Waterproofing of concrete roofs, RCC slabs, and asbestos cement sheets
- Waterproofing of GI roofs, metal roofs, and galvanized sheets
- Impervious coating on all types of roof surfaces (flat and sloped)
- Heat reflective coating for exterior walls, terraces, and balconies
- Restoration of aged bituminous membranes and existing roof systems
- Protection of PVC water tanks exposed to direct sunlight

KEY FEATURES AND BENEFITS

- **Single component** – Ready to use; no on-site mixing required
- **Water based** – Low VOC, environmentally friendly, non-toxic, and easy clean-up
- **Heat reflecting** – High solar reflectance reduces surface temperature and energy costs by up to 30%
- **Elastic and flexible** – Excellent crack bridging capability accommodates substrate movement
- **Breathable** – Allows trapped moisture vapor to escape while blocking liquid water
- **UV resistant** – Non-yellowing, withstands prolonged sun exposure without degradation
- **Weather resistant** – Resists rain, frost, and extreme climatic conditions
- **Fungus and algae resistant** – Prevents growth in humid and tropical conditions
- **Good adhesion** – Bonds to concrete, metal, asbestos cement, bitumen, and many existing roof surfaces
- **Seamless membrane** – Forms a joint-free, fully bonded protective layer
- **Available in 18 kg plastic bucket** – Convenient size for roof projects

MECHANICAL PROPERTIES

Property	Value
Tensile strength	> 1.7 MPa (> 250 psi)
Elongation at break (initial)	> 300% (up to 463%)
Elongation at break (weathered)	> 125%
Permeance	< 15 perms
Water vapour transmission	23 g/m²/24h
Crack bridging capacity	> 1.0 mm
Adhesion to concrete/metal	> 1.5 MPa

PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	Viscous liquid
Color	White (custom colours available)
Basis	100% Acrylic Elastomer
Density	1.35 – 1.40 kg/L
Solids by weight	65 – 66%
Solids by volume	51 – 55%
Viscosity	110 – 130 KU (at 25°C)
VOC content	Low / No VOC
Touch dry (at 25°C)	2 – 4 hours
Recoat time (at 25°C)	6 – 24 hours
Full cure	7 days
Application temperature	+12°C to +35°C
Service temperature	-30°C to +90°C

PACKAGING AND STORAGE

Packaging:

- 18 kg plastic bucket

Storage:

- Store in original sealed containers at +10°C to +30°C
- Protect from direct sunlight, moisture, and freezing
- Store in dry conditions
- Keep containers tightly closed when not in use

Shelf life: 12 months from date of manufacture when stored properly

DOSAGE AND COVERAGE RATES

Consumption per coat: 1.2 – 1.5 kg/m² (for approx. 0.8 – 1.0 mm wet film thickness)

Yield per 18 kg bucket: Approximately 12 – 15 m² per coat

Recommended system:

- Minimum 2 coats for all applications
- For severe exposure or high UV areas, apply 3 coats
- For joints and cracks, embed polyester/fiberglass fabric into first coat

NOTE: Coverage is approximate; varies with substrate porosity, surface profile, and application method. For rough or textured surfaces, additional material may be required.

APPLICATION GUIDLINES

Surface Preparation:

- Substrate must be clean, dry, sound, and free from dust, oil, grease, laitance, curing compounds, loose particles, and any contaminants
- Mechanically abrade smooth surfaces to achieve profile
- Remove all loose or deteriorated material
- Fill active leaks/cracks with suitable repair mortar or plugging compound prior to application
- For metal roofs, remove loose rust and tighten loose fasteners

Mixing:

- Stir thoroughly before use to ensure uniform consistency
- Do not thin or dilute – use as supplied

Application:

- Apply first coat by brush, roller (synthetic nap), or airless spray at 1.2 – 1.5 kg/m²
- For joints and cracks, embed reinforcement fabric into first coat
- Allow first coat to dry completely (minimum 6-24 hours at 25°C)
- Apply second coat crosswise to the first coat for complete coverage
- Maintain wet edge to avoid lap marks
- Do not apply when rain is expected within 24 hours

Curing:

- Protect from rain, dew, and mechanical damage for minimum 24 hours
- Light foot traffic after 24 hours
- Full water resistance after 7 days
- Do not apply below +12°C or if relative humidity exceeds 85%

HEALTH AND SAFETY

Acrylic coating may cause mild eye and skin irritation. If eye contact occurs, rinse with water for 15 minutes and seek medical attention if irritation persists. For skin contact, wash immediately with soap and water. If swallowed, do not induce vomiting; rinse mouth and drink water, then seek medical advice. Use gloves, safety glasses, and protective clothing during handling. Ensure adequate ventilation when using in confined spaces. Refer to the Safety Data Sheet for detailed information.

CLEAING OF TOOLS

Clean all brushes, rollers, mixing equipment, and spillages with soap and water immediately after use before coating dries. Dried material requires mechanical removal. Dispose of cleaning materials in accordance with local regulations.

APPROVALS AND STANDARDS

- **ASTM D6083** – Standard Specification for Liquid Applied Acrylic Coating Used in Roofing
- **ASTM D1653** – Water vapour permeance testing
- **ASTM D4541** – Pull-off adhesion strength testing
- **ASTM G154 / ASTM G53** – Accelerated weathering testing
- **CRRC Listed** – Cool Roof Rating Council
- **Title 24 Compliant** – California Energy Commission
- **EN 1504-2** – Surface protection systems for concrete (CE marking available)
- **ISO 9001** – Quality management system certified
- **LEED v4** – Contributes to energy efficiency and low-emitting materials credits
- Single component, acrylic based, flexible waterproofing and heat reflecting membrane
- Suitable for waterproofing roofs and non-trafficked areas

LEGAL NOTES

All technical data provided in this Product Data Sheet is based on laboratory testing under controlled conditions. Actual field performance may vary due to differences in substrates, application methods, site conditions, and environmental factors. ChemFit makes no warranty of merchantability or fitness for a particular purpose. Users shall conduct their own trials to validate product suitability for the intended application. ChemFit reserves the right to modify product specifications without prior notice. For the most current documentation, request the latest Product Data Sheet and Safety Data Sheet from ChemFit.

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