

## DESCRIPTION

YHCoolroof-2020 is a high weather-durability self-adhesive bituminous waterproofing membrane. It consists of a high-tack rubberized asphalt adhesive covered with weather-resistant fluorocarbon laminated film. The rubberized asphalt surface is backed with a release liner. This product is particularly suitable for long-term exposed cool roof waterproofing application.

## WHERE TO USE

YHCoolRoof-2020 is specifically engineered as a durable exposed waterproofing membrane for flat or sloped roofs with minimal pedestrian traffic. It is ideally suited for refurbishment of concrete roofs, metal roofs, bitumen membrane roofs, photovoltaic roofs and other roof waterproofing applications.

## CHARACTERISTICS AND PACKAGING

| Items                            | Description                                   |
|----------------------------------|---|
| Width (m)                        | 1   |
| Thickness (mm)                   | 1.5,2.0                                       |
| Length (m)                       | 20  |
| Roll Size (m <sup>2</sup> /roll) | 20  |
| Upper Surface Material           | Weather-resistant fluorocarbon laminated film |
| Lower Surface Material           | Release film                                  |

## ADVANTAGES

- **Excellent weather resistance:** Fluorocarbon weathering film has excellent weather resistance, making it suitable for long-term exposed applications. The white fluorocarbon film significantly reflects solar radiation, which can reduce roof surface temperatures by 10°C to 35°C in hot climates.
- **Superior adhesion:** The membrane bonds firmly to various substrates and forms high-quality overlaps.
- **Easy installation:** The peel-and-stick application method significantly improves the work efficiency.
- **Stain resistance:** The product exhibits good resistance to surface staining and maintains its white color after cleaning.

## PHSICAL PROPERTIES

| Items                         | Test Method         | Values    |
|-------------------------------|---------------------|-----------|
| Tensile Strength (L/T)[MPa]   | ASTM D412-16 (2021) | ≥9/≥10    |
| Elongation at break (L/T)[ %] | ASTM D412-16 (2021) | ≥200/≥150 |

|   |                                  |            |
|---|----------------------------------|------------|
| Puncture Resistance [N]                           | ASTM E154/E154M-08               | ≥700       |
| Water Vapour Transmission[g/(m <sup>2</sup> ·hr)] | ASTM E96/E96M-22                 | ≤0.01      |
| Crack Bridging                                    | ASTM C1305/C1305M-16             | No crack   |
| Tear Strength (L/T) [kN/m]                        | ASTM D624-00 (2020)              | ≥25/ ≥30   |
| Watertightness Test (7 Bar for 24 Hrs)            | BS EN 1928: 2000 (METHOD B)      | No leakage |
| Percentage Change in Deformation under Load[%]    | BS EN 13967:2012+A1:2017,ANNEX B | ≤-7        |
| Percentage Change in Mass/in Young`s Modulus[%]   | BS EN 1928:2000                  | ≤1.5/≤-5   |
| Hydrostatic Pressure Resistance (7 bar)           | ASTM D5385                       | No leakage |
| Peel Adhesion to Concrete[N/m]                    | ASTM D3767-03 (2020)             | ≥2000      |

*Note: All values are based on test results determined under laboratory conditions and with product samples taken from original stock. Independent laboratory test values are available upon request.*

## APPLICATION INSTRUCTIONS

- **Substrate preparation:** The surface should be cleaned, and the surface should be solid, flat, dry, clean, and free of debris. Remove dust, dirt, loose nails, and old roofing materials. Protrusions from the deck area must be removed. Decks shall have no voids, damaged, or unsupported areas. Repair deck areas before installing the membrane.
- **Primer application:** Before application, substrate should be sprayed or rolled with solvent or water-based primer fully.
- **Strengthen layer application:** Strengthen layer should be applied at the in-corners and out-corners, post-cast strips, penetrations, deformation joints and other details, and the membranes of pre-cut size and shape should be applied on the substrate.
- **Membrane application:** Remove the release liner and applying the self-adhesive face onto the substrate to ensure a good initial bond. Adjacent rolls are aligned and overlapped a minimum of 80mm at the side and ends with a roller or firm hand pressure to ensure complete adhesion and continuity between the layers. The membrane should be terminated with weather-resistant sealant.
- **Lapping joints application:** The lateral lap and end lap width should be at least 80mm. It is recommended to cover the overlap with butyl adhesive tape to improve the watertightness. The termination shall be sealed with weather-resistant sealant.
- **Repair of damaged areas:** Any punctured or damaged areas should be cleaned and patched using membrane with a minimum of 50mm laps all round.

## TRANSPORTATION AND STORAGE

- During transportation and storage, products of different types and specifications should be stacked separately and should not be mixed.

- Stored in well-ventilated and dry place. Avoid sunlight and rain. The storage temperature should not be higher than 45°C. Store in a vertical position. Do not stack pallets of the rolls on top of each other, or under pallets of any other materials during transport or storage.
- Prevent tilting or lateral pressure during transportation, and cover it with tarpaulin if necessary.
- Under the regular transportation and storage conditions, the shelf life is 12 months from the date of production.

## PRECAUTIONS

Read the product label and Material Safety Data Sheet (MSDS) before using it. Users should acquaint themselves with all risks & safety regulations and conform to manufacturer's recommendations, material handling and storage specifications.

- Protect all materials from extreme temperature.
- Construction is strictly prohibited in rainy, snowy days and windy days above level 5.
- The ambient temperature should not be lower than 5°C. When the substrate temperature is extremely low in winter, it can be heated with the help of a hot air gun.
- Lapping joint surface should be covered with weather resistant sealant, butyl adhesive tape or cement mortar.
- Store and transport rolls in such a manner to prevent bending of the inner core and membrane edge damages.
- To prevent work interruption, it is important to have all the necessary tools and equipment on the job-site when you begin.

## HEALTH AND SAFETY

Please read the safety manual carefully, our security experts will be pleased to give you advises about safety, health and environmental issues.

## DISCLAIMER

*The above information and recommendations which are based on our experience are as for reference, they can't replace the customers' own experimental results. Since our company, our representatives or distributors can't control the transportation, storage, handling and use conditions of the products, the economic disputes and the quality accident caused by improper use can 't be attributed to our suggestions. In any application, the customer shall be responsible to comply with obligations of third-party intellectual property rights. Without our consent, anyone shall not provide technical information to third parties.*