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Technical Datasheet

RE-ROOF Urethane Base Coat

Single Component, Aromatic Urethane, Cool Roof Base Coat

CSI Div. 07 & 09
07 01 50 Maintenance of Membrane Roofing
07 01 50.61 Roof Re-Coating
07 14 16 Cold Fluid Applied Waterproofing
09 01 90 Maintenance of Painting and Coating

LEED Points
MR Credit 5.1, Regional Materials.....Up to 2 Points
IEQ Credit 4.2, Low-Emitting Materials Paints and Coatings...1 Point
Using this AQUAFIN product can help contribute to LEED certification of projects in the categories shown above.

Product Description:
RE-ROOF Urethane Base Coat is a single component, moisture cured, aromatic liquid-urethane coating that functions as a base coat for Aquafin's RE-ROOF Urethane System. The RE-ROOF System is an eco-friendly, reliable solution for new roofs and cost-effective option for extending the life of existing roof systems.

Typical Applications:
- As the base coat for Aquafin's RE-ROOF Urethane System.
- Apply RE-ROOF Urethane Base Coat over a wide variety of common roof surfaces that have been primed with the appropriate Aquafin primer.

Advantages:
- Quick & easy application
- Excellent resistance to chemicals, acids, and oils

Priming and Surface Preparation:
- RE-ROOF Urethane Base Coat requires a primer for all applications. Select the appropriate primer(s) based on the type of substrate(s) and surface material(s) from the list below.
    - BUR: use RE-ROOF Primer WB
    - Concrete: use PRO-Tekt SP (Sealant Primer)
    - EPDM: use RE-ROOF EPDM Treatment
    - Galvanized Steel: use PRO-Tekt SP (Sealant Primer)
    - Masonry: use PRO-Tekt SP (Sealant Primer)
    - Modified Bitumen: use RE-ROOF Primer WB
    - Oil Contaminated Concrete: use VAPORTIGHT COAT®-SG2
    - Polyurethane: use RE-ROOF Primer PO
    - PVC: use RE-ROOF Primer PO
    - TPO: use RE-ROOF Primer PO
    - Wood (trim only): use PRO-Tekt SP (Sealant Primer)
- Refer to the corresponding primer Technical Data Sheet for surface preparation instructions and other important information.
- Ensure RE-ROOF Urethane Base Coat is applied to primed substrate within the required recoat times.
- Primed substrates must be dry, clean and free of dirt, dust, grease, oil, and other foreign substances that could interfere with adhesion.

Technical Properties:	
	RE-ROOF Urethane Base Coat
Durometer Hardness Shore A, ASTM D2240	50 ± 5
Tear Strength, ASTM D624	100 pli
Tensile Strength, ASTM D412	500 ± 100 psi
Elongation, ASTM D412	500 ± 100%
Specific Gravity	1.42 ± 0.02
Total Solids by Weight, ASTM D2369	86 ± 3%
Total Solids by Volume, ASTM D2697	84 ± 3%
Viscosity @ 77°F (25°C)	4000 - 6000 cps
Color	Gray
VOC, ASTM D-2369-81	0.42 lb/gal, 50 gm/liters
All data are averages of several tests under laboratory conditions. In practice climatic variations such as temperature, humidity, and porosity of substrate may affect these values.	

Adhesion Test:
To ensure a successful application, always perform several adhesion tests (ASTM D-903) with RE-ROOF Urethane Base Coat to ensure that the primer has successfully bonded to the roof substrate, and the primed roof substrate will accept RE-ROOF Urethane Base Coat. Do not proceed with the application of RE-ROOF Urethane Base Coat before adhesion testing.

Jobsite Preparation:
- Take all necessary precautions to ensure safety.
- Cover all intake vents near the work area.
- Minimize or exclude all personnel not directly involved with the application.
- Follow appropriate measures to prevent any sparks.
- Do not weld, smoke or allow any open flames during mixing, application or curing.
- Ensure that CO2 or other dry chemical fire extinguishers are within easy access.
- Only proceed with application when ambient temperature is minimum of 50°F (10°C) and falling, and more than 6°F (3°C) above dew point. Temperatures must be maintained within this range for at least 24 hours after the installation. Do NOT proceed with application when the temperatures drop below 50°F (10°C), if precipitation is expected, or if humidity is at or above 80%. Coating should not become wet within

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48 hours after application. Special precautions are to be taken when ambient and/or substrate temperatures are approaching, at, or above 90°F (32°C) and it may be necessary to limit material application to evening hours.
- Hot surfaces should be cooled and shaded while cold surfaces should be heated and sheltered.

Mixing:
- Condition material to 70°F to 80°F (21°C to 27°C) prior to mixing and application.
- Use chemical resistant (Nitrile) gloves and goggles when mixing or applying RE-ROOF Urethane Base Coat.
- Open container and mix at slow speeds (not exceeding 500 rpm) for 1–2 minutes to evenly distribute pigments and other ingredients that may have settled, until a homogeneous mixture is achieved. Thoroughly scrape sides of pail as material is mixed. Boxing material is recommended to ensure color uniformity.
- Use caution not to whip air into the material as this may result in pinhole blisters and/or shortened pot life. Do not mix in an up and down motion.

Application:

Read all instructions thoroughly prior to installation.
- Flashing Treatment: Prior to the application of RE-ROOF Urethane Base Coat, treat edges, seams, joints, metal flashing, penetrations and transitions with a RE-ROOF urethane flashing. Refer to the corresponding RE-ROOF urethane flashing Technical Data Sheet for surface preparation, mixing and application instructions, dry mil thickness requirements, approx. coverage, curing and recoat times. Allow to cure and pay close attention to recoat times.
- Primer: Apply the appropriate primer to the field areas in preparation for RE-ROOF Urethane Base Coat. Refer to the corresponding primer Technical Data Sheet for surface preparation, mixing and application instructions, approx. coverage, curing and recoat times. Overlap the flashing according to the primer instructions. Allow to cure and pay close attention to recoat times.
- First Base Coat: Apply the first coat of RE-ROOF Urethane Base Coat in a monolithic application at a rate of 94 ft²/gallon to achieve a minimum of 17 (± 1) mils WFT (wet film thickness). Use an airless sprayer, brush, or phenolic resin core roller. RE-ROOF Urethane Base Coat must be a uniformly thick, void-free, continuous membrane across the entire roof surface. Allow to cure and pay close attention to recoat times.

Notes: Do not apply RE-ROOF Urethane Base coat at a rate of more than 1 gallon per 50 ft² (or more than 2 gallons per 100 ft²). Sagging and running is more likely to occur on sloped, slanted and vertical areas especially when the coating is applied to thick. Thicker coating applications also increase the chances of bubbles, blisters and/or pinholes. If necessary, apply RE-ROOF Urethane Base Coat in several thinner coats, allowing each coat to properly cure.
- Second Base Coat: Apply the second coat of RE-ROOF Urethane Base Coat in a monolithic application at a rate of 94 ft²/gallon to achieve a minimum of 17 (± 1) mils WFT (wet film thickness). RE-ROOF Urethane Base Coat must be a uniformly thick, void-free, continuous membrane across the entire roof surface. Allow to cure and pay close attention to recoat times. Inspect the surface for damage prior to the application of a RE-ROOF urethane top coat. Any surface damage must be repaired with RE-ROOF Urethane Base Coat prior to the application of the top coat.

Notes: Always verify that the proper WFT (wet film thickness) has been achieved by measuring each coat using a wet film gauge. As a minimum, it is recommended to check the mil thickness in every corner, plus the center areas of the roof. Large areas will require many check points. When applying multiple, thinner coats, verify that the total DFT (dry film thickness) meets the stated requirements. See coverage chart for minimum WFT (wet film thickness) mil guidelines and DFT (dry film thickness) mil requirements.
- First Top Coat: Apply the first coat of a RE-ROOF urethane top coat. Refer to the corresponding RE-ROOF urethane top coat Technical Data Sheet for surface preparation, mixing and application instructions, dry mil thickness requirements, approx. coverage, curing and recoat times. Allow to cure and pay close attention to recoat times.
- Second Top Coat: Apply the second coat of a RE-ROOF urethane top coat.

Curing:
- Curing time for RE-ROOF Urethane Base Coat is typically 16 hours at 75°F (24°C) and 50% relative humidity.

Notes: Mix RE-ROOF Urethane Base Coat with RE-ROOF Urethane Accelerator when faster curing times are desired. Refer to RE-ROOF Urethane Accelerator Technical Data Sheet for more information.
When RE-ROOF Urethane Base Coat is mixed with RE-ROOF Urethane Accelerator, curing time is approx. 8 hours [based on 75°F (24°C) and 50% relative humidity].
- Apply second coat of RE-ROOF Urethane Base Coat within a maximum of 48 hours after the first coat of RE-ROOF Urethane Base Coat.

Note: When RE-ROOF Urethane Base Coat is mixed with RE-ROOF Urethane Accelerator, apply the second base coat within a maximum of 24 hours.
- Apply a RE-ROOF urethane top coat over RE-ROOF Urethane Base Coat within a maximum of 48 hours after the application of RE-ROOF Urethane Base Coat.

Note: When RE-ROOF Urethane Base Coat is mixed with RE-ROOF Urethane Accelerator, apply the RE-ROOF urethane top coat within a maximum of 24 hours.
- Allow to cure for at least 24 hours [based on 75°F (24°C) and 50% relative humidity] before permitting light pedestrian traffic on the finished surface.
- If more than 48 hours has passed after the application of RE-ROOF Urethane Base Coat [24 hours if RE-ROOF Accelerator is used], re-prime with RE-ROOF Primer PO before proceeding with the application of a second coat of RE-ROOF Urethane Base Coat or the application of a RE-ROOF urethane top coat.
- Allow to cure for at least 24 hours [based on 75°F (24°C) and 50% relative humidity] before permitting light pedestrian traffic on the finished surface.

Limitations:
- Do not dilute under any circumstance.
- High temperatures and high humidity will accelerate the cure time. Low temperatures and low humidity will extend the cure time.

Clean-up:

Clean tools and equipment with Methyl Ethyl Ketone (MEK), Xylene, or similar product immediately after use. Cured material must be removed mechanically.

Packaging:

5-gallon pail (18.9 liters)

55-gallon drum (208 liters)

Shelf Life & Storage:
- 12 months in unopened, original packaging when stored at temperatures between 40°F and 80°F (4.4°C to 27°C).

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- Keep containers closed, store in a dry, cool place away from heat, direct sun, sparks, open flame, and moisture.
- Protect material from freezing.

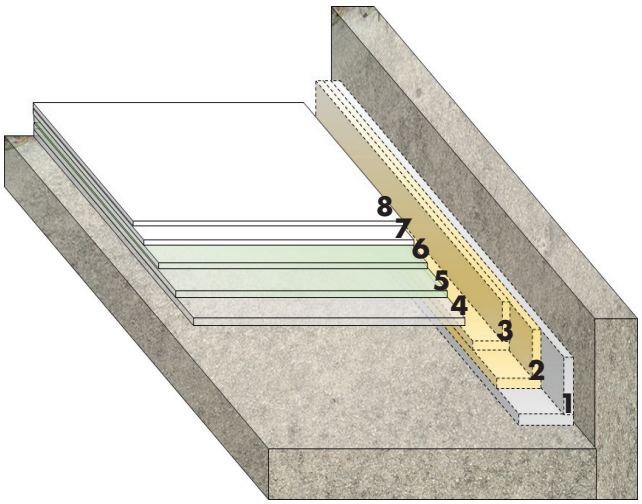
Note:
Proper application is the responsibility of the user. Field visits by AQUAFIN personnel are for the purpose of making technical recommendations and not for supervising or providing quality control on-site.

Safety:
Refer to SDS. For commercial use only. Ensure adequate ventilation in application area. Use Type C organic vapor cartridge respirators during spray application. Vapor inhalation problems are characterized by coughing, shortening of breath and tightness in the chest. Anyone exhibiting these types of symptoms should be immediately removed from the workplace and administered oxygen or fresh air. If the condition is prolonged or extreme, seek emergency medical assistance immediately. Avoid contact with skin and eyes. Wear fabric coveralls, neoprene gloves or other chemically resistant gloves and safety goggles during mixing and application. After contact with skin, wash with plenty of water. In case of eye contact, rinse immediately with plenty of water for 15 minutes and seek emergency medical assistance immediately. KEEP OUT OF REACH OF CHILDREN.

LIMITED WARRANTY: AQUAFIN, INC. warrants this product for a period of one year from the date of installation to be manufactured free of defects and to be consistent with its technical properties as stated in our current Technical Data Sheet. This product must be used as directed and within its stated shelf life. AQUAFIN INC. will replace or at our discretion refund the purchase price of any product, excluding cost of labor, which is proven to be defective. Our product recommendations are based on industry standards and testing procedures. It is the buyer's obligation to test the suitability of the product for an intended use prior to using it. We assume no warranties written, expressed or implied as to any specific methods of application or use of the product. AQUAFIN INC. MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. AQUAFIN, INC. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay. Any claim for a defective product must be filed within 30 days of discovery of a problem, and must be submitted with written proof of purchase.

For Professional Use Only.

RE-ROOF Urethane System Layers:



RE-ROOF Urethane Base Coat - Coverage Rates				
WFT (wet film thickness) and DFT (dry film thickness) requirements are provided in mils				
	Minimum WFT (Wet Film Thickness)	Required DFT (Dry Film Thickness)	Coverage Rate Per Gallon	Coverage Rate Per Unit
1st Layer: Primer(s) for flashing area(s)	(see primer Technical Data Sheet)			
2nd Layer: 1st Coat Flashing: a RE-ROOF urethane flashing	25 mils		64 ft²	224 ft² (3.5 gal unit)
3rd Layer: 2nd Coat Flashing: a RE-ROOF urethane flashing	25 mils		64 ft²	224 ft² (3.5 gal unit)
4th Layer: Primer for main field area (overlapping RE-ROOF flashing as instructed)	(see primer Technical Data Sheet)			
5th Layer: 1st Base Coat: RE-ROOF Urethane Base Coat	**17 mils**	**14 mils**	**94 ft²**	**470 ft² (5 gal unit)**
6th Layer: 2nd Base Coat: RE-ROOF Urethane Base Coat	**17 mils**	**14 mils**	**94 ft²**	**470 ft² (5 gal unit)**
7th Layer: 1st Top Coat: a RE-ROOF urethane top coat	17 mils	13 mils	94 ft²	470 ft² (5 gal unit)
8th Layer: 2nd Top Coat: a RE-ROOF urethane top coat	17 mils	13 mils	94 ft²	470 ft² (5 gal unit)
Actual coverage may vary due to texture, and absorption of substrate. Failure to achieve the required dry mil thickness will compromise the effectiveness of the product and void the warranty. It is the applicator's responsibility to verify that the required dry mil thickness has been attained.				