

DESCRIPTION

ECOTITE APC is a fast set, rapid curing plural component aluminized hybrid polyurea spray applied lining for commercial and industrial roofing applications. ECOTITE APC produces a tough, abrasion and chemical resistant film that can be applied to flat, vertical and overhead surfaces in a single or multiple pass application without sags or runs. This bondable, paintable, versatile product remains flexible in cold temperatures and contains UV stabilizers for enhanced UV stability. It can be sprayed using high pressure plural component spray equipment. For proper application, it is essential to use approved plural component equipment.

TYPICAL APPLICATIONS

- Commercial and industrial roofing.
- Recreational vehicle and trailer roofs.
- Outdoor industrial or commercial surfaces.

KEY FEATURES

- Fast Cure – Return Project to Service in 60 Minutes.
- Water Proof – Prevents penetration of water.
- Flexible – For long term impact and crack resistance. 500-600% Elongation.
- Durable – High tensile strength, chemical and abrasion resistance.
- Labor Savings – Required mils can be applied in one coat.
- Adhesion – Excellent adhesion to most surfaces.
- Glass Transition Temperatures – -85°F and 450°F (-65°C and 232°C).
- Environmentally Friendly – 100% Solids, Meets VOC Regulations.



ECOTITE APC Over Steel Roof Deck



ECOTITE APC Over 3 lb. Roofing Foam



ECOTITE APC Over Steel Roof Deck

TYPICAL PHYSICAL PROPERTIES
(For components)

	COMPONENT A	COMPONENT B
Specific Gravity (grams/cc)	1.12	1.06
Viscosity, cps	800 – 900	400 – 600
Solids by Volume/Weight	100%	100%
Volatile Organic Compounds	0 lbs/gal	0 lbs/gal
Mix Ratio, parts per volume	1	1
Color	Amber	Silver/Metallic
Shelf Life - Unopened Containers	12 months	12 months

(For cured material)

	TEST METHOD	RESULTS
Hardness (Shore A)	ASTM D-2240	85±5
Tensile Strength (psi)	ASTM D-412	1650 – 1850
Tear Resistance (pli) Die C	ASTM D-624	325
Elongation (%)	ASTM D-412	500 – 600
MVT, perms	ASTM E96	0.025
Taber Abrasion Resistance (mg of loss/1000 cycles) H18 Wheel; 1000 grams weight	ASTM D-4060	170-190

PROCESS SPECIFICATIONS

Equipment pre-heater temperature		
Component A	180°F	82°C
Component B	180°F	82°C
Hose temperature	180°F	82°C
Spray pressure	2300 PSI	158 Bar
Gel time at equipment temperature	20 – 30 seconds	
Tack free time	40 – 70 seconds	
Recoat	Max 1 - 2 hrs	
Substrate surface temperature	0 – 120° F (-18 – 48.9° C) & 5°F above dew point	
Substrate moisture content	< 15%	
Relative Humidity	< 85%	

MIXING

ECOTITE APC may not be diluted under any circumstances.

Mix ECOTITE APC Side-B (Polyol) Base material with a mechanical drum mixer until a homogeneous mixture and color is obtained. Do not allow air to be incorporated into the product. Total suspension must be achieved.

ECOTITE APC Side-A (Isocyanate) Base material requires no mixing.

COVERAGE

Due to its fast set nature ECOTITE APC may be applied at any rate to achieve desired thickness. Theoretical coverage per gallon is 1600 sq. ft. at 1 mil. Typically applied at 50 mil thickness.

54 sq. ft. per gallon @ 30 mils
 40 sq. ft. per gallon @ 40 mils
 27 sq. ft. per gallon @ 60 mils

20 sq. ft. per gallon @ 80 mils
 16 sq. ft. per gallon @ 100 mils
 13 sq. ft. per gallon @ 120 mils

PREPARATION

Any physical damage to the roof must be repaired prior to coating application. Roof surface must be clean, dry and free of any mildew, oil, grease, dirt, loosely adhered roofing materials, or other foreign contaminants that would prevent proper adhesion. Oily or painted surfaces may require solvent cleaning and abrading or scarifying of the surface to provide mechanical adhesion of the coating. Non-painted surfaces should be clean and rough enough to provide good mechanical adhesion. Metal or concrete may need to be sandblasted to achieve a surface profile similar to 80-grit sandpaper for proper adhesion of primer (if applicable) and coating. After contaminants are removed, and roof surface has been rinsed, application surfaces must be checked for compatibility. Always perform a coating adhesion test before doing the entire roof. Depending on the roof surface type and condition, a primer may be required to ensure proper adhesion.

APPLICATION

The successful installation of ECOTITE APC will depend on the equipment capabilities and settings, the temperature of the coating in the container, ambient temperature and relative humidity, substrate temperature and moisture content, substrate type and condition. It is the responsibility of the applicator to take these factors into consideration prior to installation.

A Graco Reactor E-XP2 or larger proportioner along with a Fusion AP spray gun with AR3737 mix module or larger is recommended. If material appears thickened due storage at cold temperatures, store material for a sufficient length of time in a warm area prior to application to bring material temperature to 70°F (21°C). Thinning is not recommended. Additional coats should be applied as soon as previous coat is dry and cured to ensure full, uniform adhesion (generally within 1 hour).

It is recommended that the edges, joints, and seams, in the roof be precoated. ECOTITE APC is applied in two or more separate coats to ensure proper coverage, cure rate, and to provide a continuous, durable film without pinholes. Individual coats of ECOTITE APC should be applied in perpendicular direction to the previous coat. ECOTITE APC can be reinforced with glass fiber mat or nylon mesh, particularly over seams and joints, to increase tensile strength and improve the consistency of the application surface. The mat or mesh should be open enough that the coating can penetrate to the substrate or previous coat, as the speed of reactivity will prevent incorporation of the mat or mesh into the middle of the applied coating. Be advised that adding the mat/mesh will increase tensile strength, it will reduce elongation.

In high-traffic areas, it is recommended that ECOTITE APC be reinforced and have sand or similar aggregate broadcast onto it for increased abrasion resistance.

SUBSTRATES

ECOTITE APC is compatible with all common building and roofing materials including electrical wiring, wood, metal, concrete, asphalt, EPDM rubber, TPO, aggregate, spray foam, and others.

CHEMICAL RESISTANCE

ECOTITE APC provides good resistance to many commercial and industrial chemicals such as acids, alkalis, oils and cleaning chemicals. For specific applications and information, please consult a Pinnacle representative.

NOT RECOMMENDED FOR

Applications where direct contact with extremely high or low pH will occur.

STORAGE

ECOTITE APC components should be stored in sealed containers at 60 – 90° F (15 – 32° C) in a dry area. Avoid exposure to freezing temperatures. Store on wooden pallets to avoid direct contact with the ground.

HANDLING PROCEDURES

During Processing, both A & B drums should be fitted with desiccant dryer system. Keep containers closed, when possible, to exclude any atmospheric moisture. Blanket both components with dry nitrogen when storing drums that have been opened.

PACKAGING

A set of ECOTITE APC consists of one (1) 55 gallon (208 L) drum of 'A' component and one (1) 55 gallon (208 L) drum of 'B' component. Net weight per set is 900 pounds (408 kg).

COLOR OPTIONS

Standard color – charcoal aluminized.

PRECAUTIONS

Protect from exposure to moisture. Water will cause the "A" component (ISO) to generate carbon dioxide with resulting high pressure in closed containers.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your Pinnacle representative or visit our website for current technical data and instructions.

TECHNICAL SUPPORT

We have a dedicated technical support team offering knowledgeable support for everything from preventative maintenance, equipment calibration and servicing through to coating and foam application advice. If you have any questions regarding the use of this product please call us toll free at 1-800-901-0088 or email us info@pinnaclewest.net.

ON-SITE TRAINING

Our on-site training programs provide the necessary equipment and application training, including the health and safety aspects, needed to apply a wide variety of products. The goal of our programs are to give the skills required to be a professional and productive installer.

LIMITED WARRANTY

Pinnacle West Enterprises Inc. warrants its products to be free of manufacturing defects and that they will meet Pinnacle West Enterprises Inc. current published physical properties when properly installed according to Pinnacle West Enterprises Inc. guide specifications and product data sheets over a sound, properly prepared substrate. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Pinnacle West Enterprises Inc. of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Pinnacle West Enterprises Inc. shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Pinnacle West Enterprises Inc. shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Pinnacle West Enterprises Inc. reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

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