

OVERVIEW & FEATURES

White-Knight/White-Stallion Plus is an ENERGY STAR® qualified liquid waterproofing membrane designed to maintain, restore and upgrade the performance of aged modified bitumen and single ply roof systems. It is a highly reflective, single-component, aliphatic, moisture-triggered polyurethane that provides a finished white roof surface. The White-Knight Plus WC formula is VOC compliant in the South Coast AQMD.

White-Knight Plus/White-Stallion Plus can be used to coat aged single-ply, smooth and granule modified bitumen roof systems. It can also be used as a repair material for maintenance applications and can be applied by brush, roller or spray.

Energy Efficient - Provides added UV protection to prolong the life of the roof, while helping maintain internal temperatures and reducing cooling costs.

Waterproofing Protection - Increased waterproofing protection to the existing roof system, extending the life of the roof system.

UV & Chemical Resistant - This high-performance aliphatic polyurethane coating system protects the existing roof from the harmful effects of UV radiation, greatly reducing thermal shock.

White-Knight Plus is also uniquely formulated to provide superior chemical resistance to many oils, acids, and other contaminants.

User Friendly - Easy application and versatile. It can be used to seal laps, make spot repairs or restore entire roofing systems.

PREPARATION

Make any necessary repairs, including removal of any wet insulation and roofing materials and replace with like materials. Allow repairs to cure completely. Confirm local water run-off ordinances and restrictions prior to cleaning roof. Carefully power wash all roof surfaces with greater than 2,000 psi pressure to remove debris, rust, scale, dirt, dust, chalking, peeling or flaking coatings, etc. Do not force water into the roof system or damage roof surfaces. Wearing personal protective clothing and equipment, remove algae, mildew or fungus with Simple Green Oxy Solve and scrubbing with a push broom scrub brush. Rinse at least twice to be sure all cleaning agents or contaminants are completely removed to prevent adhesion issues. If the roof surface becomes contaminated with dirt, dust or other particles at any time during the application of the White-Knight Plus system, cleaning measures must be taken to restore the surface to a suitable condition.

APPLICATION

Refer to the White-Knight Plus/White-Stallion Plus Restoration Application Guides (Single-Ply or Modified Bitumen) for complete substrate specific repair, preparation and application requirements.

White-Knight Plus roof restoration systems typically require either partial reinforcement of seams, laps and details or full fabric reinforcement of the entire existing roof surface.

PRECAUTIONS

- Product application must not be done when rain or other conditions such as fog or heavy dew are possible within a 24-hour period.
- Moisture survey must be conducted prior to roof restoration to identify any wet areas of the existing roof system that must be replaced with like-materials
- In accordance with Garland's adhesion testing protocol, ensure that the coating bond strength to the existing roof substrate(s) is four (4) pounds per linear inch (pli) or greater
- Storage temperatures should be between 60°F to 80°F (15.6°C to 26.7°C) and not exceed 110°F (43.3°C). Indoor ventilated storage is recommended. Ensure job site storage is in a shaded and ventilated area. Do not store in direct sunlight
- Coverage rate varies depending on warranty and substrate
- Restrict coating application when the ambient temperature is not at a minimum of 50°F (10°C) and rising or when overnight temperature drops below 40°F (4.4°C)
- Restrict coating application when the ambient temperature is greater than 95°F (35°C)
- Roof surface must be at least six Fahrenheit degrees or three Celsius degrees above the dew point and rising
- In areas where the roof is subject to foot traffic, it is recommended to apply a granule non-skid walkway surface
- Excess water on the roof surface can cause the roof to become slippery
- Reinforcement fabric should be used when coating over heavily alligatored surfaces, areas that pond water, and over surface irregularities
- Not intended to restore glaze coats of asphalt
- Coverage rates may vary based on surface condition/texture and do not take into account material loss due to spraying, surface texture, surface absorption, waste, etc.



Technical Data	White-Knight Plus (+WC)
Non-Volatile (ASTM D 2369)	Typical 83%
Flash Point (ASTM D 93)	110°F min. (43.3°C)
Density @ 77°F (25°C) (ASTM D 2939)	10.4 lb./gal (1.2 g/m³)
Viscosity @ 77°F (25°C); 10 RPM, Brookfield RVT, #4 Spindle	9200 cP
Tear Resistance (ASTM D 624)	400 lbs./in
Elongation	320%
Tensile Strength (ASTM D 412)	2100 psi
Color	White
Shelf Life	12 months, unopened
Packaging	5 gal. pail (18.9 l) 55 gal. drum (208.2 l)
Low Temperature Flexibility (ASTM D 5222)	-35°F min. (-37.2°C)
Drying Time* (Typical) @ 77 °F (25 °C) and 50% R.H.	Skin time: 6 hours Over-coat time: 10 hours

Higher temperature and/or humidity will result in reduced skin and overcoat times, lower temperature and/or humidity may extend skin and overcoat times.

Eco-Facts	White-Knight Plus		White-Knight Plus WC	
VOC	225 g/l		50 g/l	
	Initial	Aged	Initial	Aged
Reflectance	0.87	0.75	0.83	0.73
Emittance	0.90	0.87	0.89	0.87
SRI	111	92	104	89

For specific application recommendations, please contact your local Garland Representative or Garland Technical Service Department.

Reflectance, emittance and SRI values are for white color only



0700-0026
& 0700-0022



Approval does not apply
to WC version

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Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or the home office for more information.

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