



# White-Knight

## PRODUCT DESCRIPTION

White Knight is a multi-purpose, single component polyurethane, liquid waterproofing membrane designed to maintain, restore and upgrade the performance of existing and aged roof systems. It can provide a white ENERGY STAR® rated reflective surface.

White-Knight® can be used to coat the entire roof or as a repair material for maintenance applications

## FEATURES AND BENEFITS

### Energy Efficient

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

### Waterproofing Protection

White-Knight will provide additional waterproofing protection to an existing roof system. This process will effectively extend the life of the roof system and allow reasonable time to budget for replacement or recoat.

### ENERGY STAR®

This ENERGY STAR® rated product can provide a reflective layer over various roof systems. This dramatically lowers the energy required to cool the interior of the building. In addition, white ENERGY STAR® roofs help reduce smog and the urban heat island effect that is prevalent in many major metropolitan areas.

### UV Resistant

This high performance polyurethane coating protects the existing roof from the harmful effects of UV - greatly reducing thermal shock.

### Chemical Resistant

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

### User Friendly

The ease of application makes White-Knight extremely fast and simple to install. This superior coating can be used to reinforce and seal laps, make spot repairs or restore entire roofing systems.

## USES

White-Knight can be used to coat an entire single ply, metal, asphalt, asbestos cement or modified roof systems. It can also be used as a repair material for maintenance applications.

## APPLICATION INSTRUCTIONS

### General/Preparation

Substrates to which the system is to be applied must be dry, clean and free from loose particles, fungal growth, paint, grease, oil or other contaminants which may affect the adhesion. Power wash the entire surface with a biocidal wash. Defects in the substrate, eg. cracks should be repaired prior to application. Where necessary, the substrate should be primed in accordance with specification given. Any exposed metal surfaces to be included in the coating schedule should be wire brushed or mechanically abraded to remove rust/scale or oxidation, returned to a clean, bright metal wherever possible. Met-Prime should then be applied to this bare surface and allowed to dry before application of the White-Knight system.

### Installation

Application can be performed by brush, roller or airless spray equipment. An initial application of White Knight Base Coat is applied to the clean prepared substrate at the specified application rate. See Table 1. Whilst still wet, Garmat fibreglass matting is laid and embedded into the wet coating using a brush or roller until fully saturated allowing at least a 50 mm overlap over adjacent areas and ensuring sufficient White Knight material is applied to these areas. A check should be made to ensure that sufficient White Knight material has been applied by identifying areas of exposed matting or pin holing. If necessary, additional material may be applied to correct any visible faults. Once cured, a second coat of White Knight is applied at the specified coverage rate. Once cured and if specified a third coat of White Knight can be applied at the specified coverage rate.

**WARNING:** Areas on the roof which pond water should be cleaned on regular basis to avoid biological and microbial attack.

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## TECHNICAL DATA

Technical Data	White-Knight
<b>Colour</b>	White, Dark Grey (RAL 7012), Light Grey (RAL 7001)
<b>Reflectivity</b>	80%*
<b>Emittance</b>	80%*
<b>Density</b>	1.1 kg/m <sup>3</sup>
<b>Elongation</b>	360%
<b>Reaction to Fire</b> (BS 476-3)	EXT.F.AC
<b>Tensile Strength</b>	105 kgf/cm <sup>2</sup>
<b>Flash Point</b>	43°C
<b>Viscosity</b>	4000-5000cP
<b>Water Vapour Diffusion Resistance Factor</b>	~2400μ
<b>Packaging</b>	19l
<b>Non-Volatile</b>	83%
<b>SRI</b>	101*
<b>VOC</b> *white only	330 g/l (Base Coat) 220 g/l (Top Coat)

## LIMITATIONS / PRECAUTIONS

- Work must not be carried out if rain is imminent and the ambient temperature at the time of laying must lie between 5°C and 35°C.

- In areas where the roof is subject to foot traffic, it is recommended to apply walkway pads or a granule walkway surface. Excess water on the roof surface can cause the roof to become slippery.

For specific application recommendations, please contact your regional Garland Technical Manager or the Garland Technical Department.

Coverage Rates	Substrate		
	Smooth	Intermediate	Rough/Porus
<b>White-Knight 10 Coating System</b>			
<b>1<sup>st</sup> Layer</b>	1.0 l/m <sup>2</sup>	1.25 l/m <sup>2</sup>	1.5 l/m <sup>2</sup>
<b>2<sup>nd</sup> Layer</b>	0.5 l/m <sup>2</sup>	0.5 l/m <sup>2</sup>	0.5 l/m <sup>2</sup>
<b>White-Knight 15 Coating System</b>			
<b>1<sup>st</sup> Layer</b>	1.0 l/m <sup>2</sup>	1.25 l/m <sup>2</sup>	1.5 l/m <sup>2</sup>
<b>2<sup>nd</sup> Layer</b>	0.75 l/m <sup>2</sup>	0.75 l/m <sup>2</sup>	0.75 l/m <sup>2</sup>
<b>White-Knight 20 Coating System</b>			
<b>1<sup>st</sup> Layer</b>	1.0 l/m <sup>2</sup>	1.25 l/m <sup>2</sup>	1.5 l/m <sup>2</sup>
<b>2<sup>nd</sup> Layer</b>	1.0 l/m <sup>2</sup>	1.0 l/m <sup>2</sup>	1.0 l/m <sup>2</sup>
<b>White-Knight 25 Coating System</b>			
<b>1<sup>st</sup> Layer</b>	1.0 l/m <sup>2</sup>	1.25 l/m <sup>2</sup>	1.5 l/m <sup>2</sup>
<b>2<sup>nd</sup> Layer</b>	0.75 l/m <sup>2</sup>	0.75 l/m <sup>2</sup>	0.75 l/m <sup>2</sup>
<b>3<sup>rd</sup> Layer</b>	0.75 l/m <sup>2</sup>	0.75 l/m <sup>2</sup>	0.75 l/m <sup>2</sup>

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