Torch Evolution VCL/Carrier – *E-101*

Technical Data Sheet

Product Description

Torch Evolution VCL/Carrier Membrane utilises SBS polymers. These allow the membrane to be flexible in cold weather conditions yet remain elastic over the life time of the roof. This membrane is reinforced with polyester which provides the membrane with its excellent tensile strength, tear/puncture resistance and elongation properties. The upper face is finished with a new multipurpose polypropylene textured fabric which is ideally suited to receive liquid coating products such as Garland's White-Knight system or adhesives used to bond insulation. This upper surface can also be melted by flame so conventional torch-based application methods can be used.

Features:

- ✓ Strong and elastic
- ✓ Coating receptive upper faced fabric
- ✓ Designed to prevent high humidity air saturated with moisture from entering the roof system and causing issues with thermal efficiency of the insulation and blistering of waterproofing membranes

Uses

The membrane has been specifically designed as a carrier layer for Garland's polyurethane liquid coating systems such as White-Knight. This membrane provides a new surface for such applications where the existing substrate is in poor condition or an intermediate layer of waterproofing is required. The membrane can also be used as a vapour check as the upper fabric surface provides good bond between Garland's Insu-Lock adhesive and the insulation boards used.

Application Instructions

The laying deck shall be clean, smooth and dry. For a better adhesion it may be previously treated either with Garland Garla-Prime. The membrane is then laid by melting the lower side with light propane gas flame. Edges shall be overlapped, always by torch, by at least 75mm on the sides and 100mm at the head laps so that waterproofing integrity is maintained. For further application information please refer to specific specifications provided by your Garland Technical Manager.

Technical Data

Reinforcement type:	Non-woven polyester reinforcement, reinforced with fibre glass filaments (composite).
Compound type:	Bitumen modified with thermoplastic rubber (SBS).
Surface finishing:	Upper side: Textured polypropylene film.
Lower side:	Polyethylene film
Laying method:	Lower side finishing: Propane-gas flame
	Upper side finishing: hot/cold glues

If you require any further information please contact your local Garland Technical Manager.

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Properties	Norms	Unit	Value	Tolerance
Physical Data				
Type of compound			SBS	
Type of reinforcement			Non-woven polyester +Fibreglass filaments	
Finish upper face			Textured polypropylene fabric	
Finish lower face			Polyethylene film	
Length	EN 1848-1	m	10	±1%
Width	EN 1848-1	m	1	±1%
Thickness	EN 1849-1	mm	3	±5%
Mechanical Data				
Watertightness	EN 1928	kPa	60	≥
Cold temperature flexibility	EN 1109	°C	-20	≤
Visible defects	EN 1850-1		No	
Flow resistance	EN 1110	°C	110	≤
Tensile strength L	EN 12311-1	N/5 cm	600	±20%
Tensile strength T	EN 12311-1	N/5 cm	400	±20%
Elongation at break L	EN12311-1	%	35	±15 ABS
Elongation at break T	EN 12311-1	%	35	±15 ABS
Nail tear strength L	EN12310-1	N	140	±20%
Nail tear strength T	EN12310-1	N	140	±20%
Static puncture resistance	EN 12730	kg	15	≥
Dynamic puncture resistance	EN 12691	mm	900	≥
Fire Performance				
Fire resistance	EN 13501-5		F ROOF	
Fire reaction	EN 13501-1		F	
Application Data				
Minimum application temp		°C	5	
Minimum slope		%	1.5	

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Recommendations

The rolls shall be stored in an upright position, preferably indoors in a dry and ventilated conditions and shall be protected from extreme cold, temperature should be above 0°c, to avoid possible deformation and or embrittlement of the same drainage system.

The rolls shall be stored in their original packaging and not stacked more than two pallets high, using appropriate wooden spacers.

The materials on stock should be rotated following a first in first out rotation.

The rolls shall be kept in a warm or heated storage area during application, should the workability of the material deteriorate or become stiff and difficult to install during application, these should be returned to the heated storage area and substituted with new rolls.

The rolls that are temporarily stored on the roof before application, shall be kept elevated by being left on their own pallets and shall be covered and protected from the weather.

The application surface must be smooth, free of moisture, ponding water and dust, the area must be provided with an adequate drainage system (minimum slope shall be 1.5%).

The application surface shall be primed with a bituminous based product and allowed to dry prior to application, do not apply in adverse weather conditions or in the presence of imminent rain.

In case of application on vertical (higher than 2 meters) or considerable slopes, appropriate mechanical fixings should be taken into consideration.

The minimum application temperature is + 5°C.

The material without mineral self-protection and used as a top layer (cap sheet) can be painted with an aluminium coating to improve and extend the performance and life expectancy, the material should be allowed to oxidize approx. 3-6 months before being coated.

The pallets on which the rolls are packaged are intended for normal warehouse use.

* It is impossible to guarantee the colour uniformity on self protected mineral membranes as the suppliers of the same do not provide any also. All self protected mineral finished membranes undergo colour variations over time due to the exposure to atmospheric agents. Normally these variations in time will gradually become uniform.

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