



WATERPROOFING SYSTEMS

GECO M.R.

Composite waterproofing membrane



DESCRIPTION

Prefabricated modified composite polymer-bitumen waterproofing membrane composed of distilled bitumen and differentiated waterproofing masses, specifically designed for use over old bituminous waterproofing membranes self-protected with mineral slate. The upper face compound is composed of distilled bitumen and elasto-plastomers while the lower face compound is composed of distilled bitumen and special polymers which provide particular characteristics of adhesion & workability. A special waterproofing mass is used to bond the upper & lower compounds. GECO M.R. is reinforced with a woven non woven single strand composite polyester fabric, with very good mechanical characteristics and exceptional dimensional stability. GECO M.R. is self-protected with mineral slates which reduce heat absorption and improve the durability of the membrane. GECO M.R. has a 10 cm side selvedge and a 15 cm head selvedge which promotes the adhesion between the various sheets.

METHODS OF APPLICATION

The application of the membrane is generally obtained by heat, using either a gas or hot air torch making sure to provide for side laps of 10 cm and head laps of 15 cm. Considering the particular areas of usage the product must be applied fully bonded to the existing membrane, the same must also be done for those areas such as the perimeter, verticals and change of slope. For further information we recommend to consult GECO's technical literature.

FIELDS OF USE

GECO M.R. is specifically indicated for use as a re-furbishment layer over existing old bituminous waterproofing membranes self-protected with mineral slates, considering the excellent characteristics of workability and adhesion to the mineral granules.

Technical Characteristics	Measure units	Reference norm	PA		Tolerance
Type of compound			APP		
Type of reinforcement			Polyester		
Upper face finish			Mineral*		
Lower face finish			PE film		
Length	m	EN 1848-1	8 -1%		
Width	m	EN 1848-1	1 -1%		
Mass	kg/m ²	EN 1849-1	5,0	5,5	±10%
Cold flexibility	°C	EN 1109	-10		
Flow resistance	°C	EN 1110	120		
Flow resistance after ageing	°C	EN 1296	NPD		-10°C
Shear resistance L/T	N/5 cm	EN 12317-1	500/400	750/550	-20%
Tensile strength L/T	N/5 cm	EN 12311-1	600/500	850/650	-20%
Elongation at break L/T	%	EN 12311-1	35/35	40/40	-15
Nail tear strength L/T	N	EN 12310-1	150/150	200/200	-30%
Static puncture resistance	kg	EN 12730	15	20	
Dynamic puncture resistance	mm	EN 12691	900	1250	
Fire resistance		EN 13501-5	F ROOF		
Fire reaction		EN 13501-1	F		
Watertightness	kPa	EN 1928	60		
Watertightness after ageing	kPa	EN 1296	60		

* Mineral self-protected products may undergo color tone variations due to the time and length of storage. Exposure to atmospheric conditions, after application, will tend to uniform the color after a few months. The change in color tone cannot therefore be contested and / or complained of as it is a natural phenomenon that the slate manufacturer himself cannot guarantee.
NPD = No Performance Declared in accordance with the EU Construction Products Directive.

TECHNICAL DATA SHEET




APPLICATION & RECOMMENDATIONS

- Clean the application surface.
- Apply by gas or hot air torch a 25 cm strip of woven non woven polyester reinforced membrane along all the vertical up stands.
- Position the membrane always starting from the lowest point, in order to have all the overlaps with the slope.
- Apply and position the membranes staggered to avoid creating areas where the membrane overlap against the slope and in the direction of the drains.
- After having positioned the roll, re-roll the material for half of its length and begin application; repeat the same operation for the remaining half of the roll.
- It is necessary to heat the entire surface, except the overlaps, of the lower face to obtain a full adhesion to the application surface.
- During the application by torch, the material needs to be heated to a point where the compound starts to flow in such a way that it fully saturates the application surface. The melted flow of compound obtained by torching is the R mass.
- Torch the side laps (10 cm) and head laps (15 cm) with a torch for overlaps. During this stage the overlaps should be pressed by using a roller (15 kg) from which a bead of compound should flow. Do not iron the overlaps.
- Apply the vertical membrane sheet having the same characteristics of the waterproofing membrane and dimensions equal to the width of the roll, making sure that it overlaps the horizontal one by at least 10 cm, heating it with a gas torch and squeezing it with a trowel until a bead of compound appears from underneath.
- The height of the vertical must be equivalent or superior to the finished surface by at least 15 cm.
- Verticals higher than 20 cm must be done with GECOM P+V 4 mm or GECOM PA 5,0 kg/m².
- The rolls are to be stored in an upright position, indoors in a dry and ventilated area, away from heat sources. Absolutely avoid the stacking of rolls and pallets for storage or transport to avoid possible deformations which may compromise a perfect installation. It is recommended to store the product at temperatures above 0°C.
- 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 dry & clean.
- In situations of application on vertical surfaces superior to 2 meters or on very sloped substrates, apply suitable mechanical fixings to the head and side laps, after which they will be sealed.
- The application must be done at temperature higher than +5°C.
- The application must be interrupted in adverse weather conditions (high humidity, rain, etc.).
- The pallets on which the rolls are packaged are intended for normal warehouse use.
- The materials on stock should be rotated following a first in first out rotation.
- For information concerning storage and application of Geco membranes, please refer to the "Installation manual".

FIELDS OF USE

EN13707 CONTINUOUS ROOFS 0958-CPR-2045/1

CERTIFICATION 	N. LAYERS			METHOD OF APPLICATION						TYPE OF APPLICATION			TYPE			
	SINGLE LAYER	DOUBLE LAYER	MULTILAYER	TORCH	HOT AIR	MIXED (TORCH/AIR)	COLD BOND GLUE	MECHANICAL FIXING	THERMOADHESIVE / SELF-ADHESIVE	FULLY BONDED	PARTIALLY BONDED	LOOSE LAID	COMPLEMENTARY LAYER	TOP LAYER	HEAVY PROTECTION	ANTI-ROOT
GECO M.R. PA 5,0 KG/MQ		X	X	X						X				X		
GECO M.R. PA 5,5 KG/MQ		X	X	X						X				X		