



## ORIENT MINERAL PL

### COMPOUND

The waterproofing compound of ORIENT membranes is made up of a mix of empty residue distilled bitumen modified with SBS thermoplastic rubber based on radial elastomers, synthetic rubber and stabilizing aggregate fillers. The compound is thermally stable, very elastic and particularly flexible at low temperatures.

### REINFORCEMENT

The reinforcement used for ORIENT MINERAL PL membranes is made up of a non-woven polyester mat stabilized with glass fibres, which gives to the product adequate mechanical and breaking elongation characteristics, as well as very good dimensional stability. Such characteristics allow to use these membranes also on mechanically and thermally stressed surfaces.


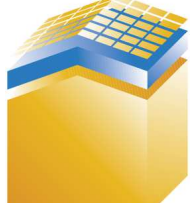
### OUTSIDE FINISHING

The ORIENT MINERAL PL membrane is finished on the upper side either with natural or coloured slate granules or with ceramic granules. The lower side is finished with PE torch-on film; other finishings such as aggregate, polymeric films, non-woven non-stick polymers may also be used. All self-protected slate bitumen membranes are subject to variations in color due to exposure to atmospheric agents. However, these variations will tend to gradually become uniform over time.

### LAYING METHOD

The laying deck shall be clean, smooth and dry. For a better adhesion it may be previously treated either with solvent based primer or with water based primer. 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 10 cm. on the sides and 15 cm. on top so that the roofing watertightness is granted.

### USE

The ORIENT MINERAL PL membranes are planned to be used as top layer, under layer for discontinuous roofing.			
			
Top layer membranes	Under layer membranes for discontinuous roofing		

### PACKAGING

PRODUCT	THICKNESS (mm)	WEIGHT (kg/m <sup>2</sup> )	ROLL DIM. (m) width x length	ROLLS per PALLET	m <sup>2</sup> per PALLET
ORIENT MINERAL 4 PL	-	4	1 x 10	30	300
ORIENT MINERAL 4,5 PL	-	4,5	1 x 10	27	270
ORIENT MINERAL 5 PL	-	5	1 x 8	25	200

The published data are indicative average values of the current manufacture and can be modified by producer without notice. The technical information come from our experience with regard to characteristics and use of the product. Given the many different uses and possible factors beyond our control which may intervene, we are not to be held responsible for the results. Purchasers have to assess under their responsibility if the product is suitable for the required use. The Nuova Meridiana polymer bitumen membranes products are based on bitumen coming from crude oil distillation and do not contain coal tar, asbestos or chlorine, they are recyclable and are not a dangerous waste. The polymer bitumen membrane which this data sheet refers to, is not subject to the obligation of safety profile issuing. An informative data sheet, inclusive of laying method instructions for a correct use of the product, is available on request.



## ORIENT MINERAL PL

<b>O.N. Notice code:</b>	1370 (referred only to EN 13707 and EN 13969 norms)
<b>FPC certificate number:</b>	1370-CPR-0042 (referred only to EN 13707 and EN 13969 norms)
<b>Reinforcement type:</b>	Reinforced and stabilized non-woven polyester mat.
<b>Compound type:</b>	Bitumen modified with thermoplastic rubber (SBS).
<b>Surface finishing:</b>	Upper side: slate granules / coloured slate / ceramic granules Lower side: aggregate / PE / PP polymeric film, NON-WOVEN, non-stick polymers.
<b>Laying method:</b>	- For lower side finishing with aggregate, polymeric films, non-stick polymers, Non-Woven: Propane-gas light flame - For lower side finishing with aggregate: hot glues, cold glues.

FOR A CORRECT USE OF THE PRODUCT PLEASE REFER ANYWAY TO THE MANUFACTURER'S TECHNICAL DOCUMENTS

TEST DESCRIPTION	STANDARDS	M / U	NOMINAL VALUES			TOLERANCES
			ORIENT MINERAL 4 PL	ORIENT MINERAL 4,5 PL	ORIENT MINERAL 5 PL	
Reference norms			EN 13707 EN 13859-1	EN 13707 EN 13859-1	EN 13707 EN 13859-1	
Use	-	-	Top layer membranes / Under layer membranes for discontinuous roofing	Top layer membranes / Under layer membranes for discontinuous roofing	Top layer membranes / Under layer membranes for discontinuous roofing	-
Visible defects	UNI EN 1850-1	-	Pass the test	Pass the test	Pass the test	-
Length	UNI EN 1848-1	m	10,00 - 1%	10,00 - 1%	8,00 - 1%	Min.
Width	UNI EN 1848-1	m	1,00 - 1%	1,00 - 1%	1,00 - 1%	Min.
Straightness	UNI EN 1848-1	mm	20 mm x 10 m	20 mm x 10 m	20 mm x 10 m	Max
Mass per unit area	UNI EN 1849-1	kg/m <sup>2</sup>	4	4,5	5	± 10%
Watertightness (B method)	UNI EN 1928	Kpa	60 - Pass the test	60 - Pass the test	60 - Pass the test	Kpa Min. ≥ 10
External fire exposure behaviour	EN 13501-5	-	Froof	Froof	Froof	-
Reaction to fire	EN 13501-1	Class	NPD	NPD	NPD	-
Water vapour transmission	UNI EN 1931 (2002)	$\mu$ Sd (m)	240	290	340	± 60
Tensile strenght L/T (max load)	UNI EN 12311-1	N/50mm	500 / 350	500 / 350	500 / 350	-20%
Breaking elongation L/T	UNI EN 12311-1	%	30 / 30	30 / 30	30 / 30	-15 absolute
Resistance to tearing L/T	UNI EN 12310-1	N	140 / 140	140 / 140	140 / 140	-30 %
Dimensional stability L/T	UNI EN 1107-1 A method	%	± 0,3	± 0,3	± 0,3	Min.
Flexibility at low temperature	UNI EN 1109	°C	-15	-15	-15	Min.
Flow resistance at elevated temperature	UNI EN 1110	°C	80	80	80	Min.
Flexibility at low temperature after ageing	UNI EN 1296 UNI EN 1109	°C	-5	-5	-5	+15°C
Mineral surface adhesion	UNI EN 12039	%	Max loss 30%	Max loss 30%	Max loss 30%	Max value
Artificial ageing through long term exposure at UV radiations combined with temperature and heat - Tensile strength	UNI EN 1297 UNI EN 1296 UNI EN 12311-1	N/50mm	NPD	NPD	NPD	± 50% initial value
Artificial ageing through long term exposure at UV radiations combined with temperature and heat - Watertightness	UNI EN 1297 UNI EN 1296 UNI EN 1928 A method	Class	NPD	NPD	NPD	Kpa ≥ 60