

# ZETAGUM MINERALE PL

## COMPOUND

The waterproofing compound of ZETAGUM MINERALE membranes is made up of a mix of empty residue distilled bitumen modified with plastomeric polymers based on atactic polypropylene, isotactic polypropylene, synthetic rubber and stabilizing aggregate fillers. The compound is UV rays resistant, thermally stable and flexible at low temperatures.

## REINFORCEMENT

The reinforcement used for ZETAGUM MINERALE PL membranes is made up of a non-woven polyester mat stabilized with glass fibres, which gives to the product good 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.

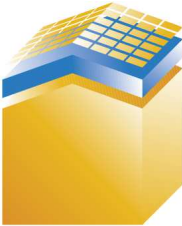
## OUTSIDE FINISHING

The ZETAGUM MINERALE 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 VERVAL PRIMER (solvent based) or with ECOPRIMER (water based). 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 ZETAGUM MINERALE PL membranes are planned to be used as under layer for discontinuous roofing.		
		
	<b>ULMDR</b> 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
ZETAGUM MINERALE 3,5 PL	-	3,5	1 x 10	30	300
ZETAGUM MINERALE 4 PL	-	4	1 x 10	27	270
ZETAGUM MINERALE 4,5 PL	-	4,5	1 x 10	25	250
ZETAGUM MINERALE 5 PL	-	5	1 x 10	20	200
ZETAGUM MINERALE 6 PL	-	6	1 x 5	30	150

The published data are indicative average values of the current manufacture and can be modified by Valli Zabban S.p.A. 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 polymer bitumen membranes manufactured by Valli Zabban S.p.A. 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 and can be downloaded from our website: [www.vallizabban.com](http://www.vallizabban.com).



# ZETAGUM MINERALE 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 Polypropylene (BPP).
<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
			ZETAGUM MINERALE 3,5 PL	ZETAGUM MINERALE 4 PL	ZETAGUM MINERALE 4,5 PL	ZETAGUM MINERALE 5 PL	ZETAGUM MINERALE 6 PL	
Reference norms			EN 13859-1	EN 13859-1	EN 13859-1	EN 13859-1	EN 13859-1	
Use	-	-	ULMDR	ULMDR	ULMDR	ULMDR	ULMDR	-
Visible defects	UNI EN 1850-1	-	Pass the test	Pass the test	Pass the test	Pass the test	Pass the test	-
Length	UNI EN 1848-1	m	10,00 - 1%	10,00 - 1%	10,00 - 1%	10,00 - 1%	5,00 - 1%	Min.
Width	UNI EN 1848-1	m	1,00 - 1%	1,00 - 1%	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	20 mm x 10 m	20 mm x 10 m	Max
Mass per unit area	UNI EN 1849-1	kg/m²	3,5	4	4,5	5	6	± 10%
Watertightness (B method)	UNI EN 1928	Kpa	60 - Pass the test	60 - Pass the test	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	Froof	Froof	-
Reaction to fire	EN 13501-1	Class	NPD	NPD	NPD	NPD	NPD	-
Water vapour transmission	UNI EN 1931 (2002)	μ Sd (m)	190	240	290	290	290	± 60
Tensile strenght L/T (max load)	UNI EN 12311-1	N/50mm	430 / 300	430 / 300	430 / 300	430 / 300	430 / 300	-20%
Breaking elongation L/T	UNI EN 12311-1	%	30 / 30	30 / 30	30 / 30	30 / 30	30 / 30	-15 absolute
Resistance to tearing L/T	UNI EN 12310-1	N	130 / 130	130 / 130	130 / 130	130 / 130	130 / 130	-30 %
Dimensional stability L/T	UNI EN 1107-1 A method	%	NPD	NPD	NPD	NPD	NPD	Min.
Flexibility at low temperature	UNI EN 1109	°C	0	0	0	0	0	Min.
Flow resistance at elevated temperature	UNI EN 1110	°C	110	110	110	110	110	Min.
Mineral surface adhesion	UNI EN 12039	%	Max loss 30%	Max loss 30%	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	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	NPD	NPD	Kpa ≥ 60

The Company disclaimer can be consulted at the following link: [www.vallizabban.com](http://www.vallizabban.com).

Rev.2-11/2017