



# ELASTOVAL MINERALE VV

## COMPOUND

The waterproofing compound of ELASTOVAL 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 flexible at low temperatures.

## REINFORCEMENT

The reinforcement used for ELASTOVAL MINERALE VV membranes is made up of a reinforced glass fiber which gives to the product remarkable mechanical characteristics, sufficient breaking elongation, as well as excellent dimensional stability. Such characteristics allow to use these membranes on non-particularly stressed surfaces.

## OUTSIDE FINISHING

The ELASTOVAL MINERALE VV 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.

## 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 ELASTOVAL MINERALE VV membranes are planned to be used as top layer, under layer membranes for discontinuous roofing.			
<b>TLM</b> Top layer membranes	<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
ELASTOVAL MINERALE 3,5 VV	-	3,5	1 x 10	30	300
ELASTOVAL MINERALE 4 VV	-	4	1 x 10	27	270
ELASTOVAL MINERALE 4,5 VV	-	4,5	1 x 10	25	250

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).



# ELASTOVAL MINERALE VV

<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 glass fiber.
<b>Compound type:</b>	Bitumen modified with thermoplastic rubber (SBS).
<b>Surface finishing:</b>	Upper side: aggregate / PE / PP polymeric film, NON-WOVEN, non-stick polymers. 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
			ELASTOVAL MINERALE 3,5 VV	ELASTOVAL MINERALE 4 VV	ELASTOVAL MINERALE 4,5 VV	
Reference norms			EN 13707 / EN 13859-1	EN 13707 / EN 13859-1	EN 13707 / EN 13859-1	
Use	-	-	ULMDR	TLM / ULMDR	TLM / ULMDR	-
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%	10,00 - 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>	3,5	4	4,5	± 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	F	F	F	-
Water vapour transmission	UNI EN 1931 (2002)	M Sd / m	190	240	290	/ ± 60
Tensile strenght L/T (max load)	UNI EN 12311-1	N/50mm	300 / 200	300 / 200	300 / 200	-20%
Breaking elongation L/T	UNI EN 12311-1	%	2 / 2	2 / 2	2 / 2	-2 absolute
Resistance to tearing L/T	UNI EN 12310-1	N	70 / 70	70 / 70	70 / 70	-30 %
Dimensional stability L/T	UNI EN 1107-1 A method	%	NPD	NPD	NPD	Min.
Flexibility at low temperature	UNI EN 1109	°C	-25	-25	-25	Min.
Flow resistance at elevated temperature	UNI EN 1110	°C	100	100	100	Min.
Flexibility at low temperature after ageing	UNI EN 1296 UNI EN 1109	°C	-15	-15	-15	+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% initiali 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

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