

MULTIVAL CAR 25

COMPOUND

The MULTIVAL CAR 25 membranes are made up of a multi-layered polymer mix, the compound making up the waterproofing mass of the lower layer is made up of a mix of empty residual distilled bitumen modified with thermoplastic rubber (SBS) based on radial elastomers, synthetic compatibilizers and inert fillers. stabilizers. The compound constituting the upper layer is instead formed by a mixture of empty residual distilled bitumen modified by elastoplastic polymers based on atactic polypropylene, isotactic polypropylene, synthetic compatibilizers and stabilizing inert fillers. The compound is UV-resistant, thermally stable and particularly flexible at low temperatures.

REINFORCEMENT

The reinforcement used for MULTIVAL CAR 25 membranes is made up of a non-woven spunbond polyester mat stabilized with glass fibres, which gives the product very good mechanical characteristics, very good breaking elongation, as well as excellent dimensional stability. Such characteristics allow to use these membranes also on mechanically and thermally stressed surfaces.






OUTSIDE FINISHING

The MULTIVAL CAR 25 membrane is treated on the upper side with polymer non-woven polyester; other finishings such as polymeric film and non-stick aggregate may also be used. 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 MULTIVAL CAR 25 membranes are planned to be used as under and middle layer, single layer, under heavy protection, against humidity from soil and for bridges, viaducts, parkings				
				
UMLM Under and middle layer membranes	SLM Single layer membranes	UHPM Under heavy protection membranes	MAHS Membranes against humidity from soil	MBVP Membranes for bridges, viaducts, parkings

PACKAGING

PRODUCT	THICKNESS (mm)	WEIGHT (kg/m ²)	ROLL DIM. (m) width x length	ROLLS per PALLET	m ² per PALLET
MULTIVAL CAR 25 4 MM	4	-	1 x 10	25	250
MULTIVAL CAR 25 5 MM	5	-	1 x 10	20	200

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.



MULTIVAL CAR 25

- O.N. Notice code:** 1370
FPC certificate number: 1370-CPR-0042
Reinforcement type: - Non-woven spundbond polyester mat stabilized with glass fibres
Compound type: Bitumen modified with multi-layered polymer mix.
Surface finishing: Upper side: polymer non-woven polyester.
 Lower side: aggregate / PE / PP polymeric film, NON-WOVEN, non-stick polymers
Laying method: - 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
			MULTIVAL CAR 25 4 MM	MULTIVAL CAR 25 5 MM	
Reference norms			EN 13707 / 13969 / 14695	EN 13707 / 13969 / 14695	
Use	-	-	UMLM / UHPM / MAHS / MBVP	UMLM / SLM / UHPM / MAHS / MBVP	-
Visible defects	UNI EN 1850-1	-	Pass the test	Pass the test	-
Length	UNI EN 1848-1	m	10,00 - 1%	10,00 - 1%	Min.
Width	UNI EN 1848-1	m	1,00 - 1%	1,00 - 1%	Min.
Straightness	UNI EN 1848-1	mm	20 mm x 10 m	20 mm x 10 m	Max.
Thickness	UNI EN 1849-1	mm	4	5	± 0,2
Watertightness (B method)	UNI EN 1928	Kpa	100 - Pass the test	100 - Pass the test	Kpa min. ≥ 10
External fire exposure behaviour	EN 13501-5	-	Froof	Froof	-
Reaction to fire	EN 13501-5	Class	NPD	NPD	-
Shear resistance of joints	UNI EN 12317-1	N/50mm	900 / 800	900 / 800	-20%
Water vapour transmission	UNI EN 1931	μ Sd (m)	20.000 NPD	20.000 NPD	- ± 60
Tensile strenght L/T (max load)	UNI EN 12311-1	N/50mm KN/m	1.200 / 1.000 24 / 20	1.200 / 1.000 24 / 20	-20%
Breaking elongation L/T	UNI EN 12311-1	%	50 / 50	50 / 50	± 15 absolute
Resistance to impact	UNI EN 12691	mm	1.750	1.750	Min.
Static loading (A method)	UNI EN 12730	Kg	25	25	Min.
Resistance to tearing L/T	UNI EN 12310-1	N KN	280 / 280 0,28 / 0,28	280 / 280 0,28 / 0,28	- 30 %
Dimensional stability L/T	UNI EN 1107-1 A method	%	± 0,25	± 0,25	Min.
Flexibility at low temperature upper/lower	UNI EN 1109	°C	-15 / -25	-15 / -25	Min.
Flow resistance at elevated temperature	UNI EN 1110	°C	110	110	Min.
Flexibility at low temperature after thermal ageing	UNI EN 1296 UNI EN 1109	°C	-15 / -25	-15 / -25	+15°C
Flow resistance at elevated temperature after ageing	UNI EN 1296 UNI EN 1110	°C	100	100	-10°C
Artificial ageing through long term exposure at UV radiations combined with temperature and heat	UNI EN 1297 UNI EN 1850-1	Visual	No defects	No defects	Min.
Watertightness after artificial ageing through long term exposure at high temperatures	UNI EN 1296 UNI EN 1928	Kpa	NPD	NPD	Kpa min. ≥ 10
Watertightness determination after exposure to chemical agents	UNI EN 1847 UNI EN 1928	Kpa	NPD	NPD	Kpa min. ≥ 10





MULTIVAL CAR 25

TEST DESCRIPTION	STANDARDS	M / U	NOMINAL VALUES		TOLERANCES
			MULTIVAL CAR 25 4 MM	MULTIVAL CAR 25 5 MM	
Water absorption	UNI EN 14223	%	≤ 0,5 %	≤ 0,5 %	Min.
Cohesive force - Sample type 1 a) Without primer b) Verval Primer c) Ecoprimer	UNI EN 13596	N/mm ²	(a, b, c) ≥ 0,4	(a, b, c) ≥ 0,4	Min.
Shear strength a) Without primer b) Verval Primer c) Ecoprimer	UNI EN 13653	N/mm ²	(a, b, c) ≥ 0,30	(a, b, c) ≥ 0,30	Min.
Deck cracking (crack bridging ability)	UNI EN 14224	°C	NPD	NPD	Min.
Compatibility with heat conditioning	UNI EN 14691	%	80%	80%	Min.
Resistance to compaction of a layer of asphalt	UNI EN 14692		Test passed	Test passed	
Behaviour of polymer bitumen membranes during the application of mastic asphalt	UNI EN 14693	% mm	NPD	NPD	Min.
Watertightness with pre-treatment	UNI EN 14694	Kpa	500	500	
Dimensional stability at high temperatures for applications under casted asphalt	UNI EN1107-1 Annex B	%	Test passed	Test passed	Min.

The Company disclaimer can be consulted at the following link: www.vallizabban.com.

Rev. 2 – 04/2021