

ARTICA MINERAL PL

SELF-ADHESIVE POLYMER-BITUMEN BPP

PREFABRICATED WATERPROOFING MEMBRANE

COMPOUND

The ARTICA membranes are manufactured with two distinct types of polymer-bitumen compound. The compound making up the waterproofing mass of the outside surface, with a flexibility of -15 °C, is made up of a mix of empty residual distilled bitumen modified with elastoplastomeric polymers based on atactic polypropylene, isotactic polypropylene, synthetic compatibilizers and stabilizing inert fillers. The compound is UV-resistant and thermally stable. The adhesive mass of the inside surface is made up of a mix of Venezuelan empty residual distilled bitumen modified with thermoplastic rubber based on radial, linear, isoprenic elastomers, hydrocarbon resins and synthetic compatibilizers that make it extremely flexible at low temperatures reaching -25 °C and stick by simple pressure.

REINFORCEMENT

The reinforcement used for ARTICA MINERAL PL membranes is made up of a non-woven polyester mat stabilized with glass fibres, which gives to the product very 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 ARTICA 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 silicone film to be removed during the application. All polymer bituminous membranes self-protected with slate are subject to colour variations due to the exposure to weathering. These variations will tend gradually to get uniform over time.

LAYING METHOD

On the clean, smooth and dry laying surface, possibly treated to promote adhesion with solvent-based or water-based primer, the overlaps. In the presence of temperatures below + 15 ° C (or of material stored for a long time) it may be necessary to slightly heat the membrane with special hot air burners to promote adhesion. In vertical applications, fix the head of the waterproof sheet with mechanical fasteners and protect it with a metal flashing. Side overlaps of at least 10 cm and front overlaps of at least 15 cm must be provided.

USE

The ARTICA MINERAL PL membranes are planned to be used as top layer and under layer for discontinuous roofing					
	TLM Top layer membranes	ULMDR Under layer membranes for discontinuous roofing			

PACKAGING

PRODUCT	THICKNESS (mm)	WEIGHT (kg/m²)	ROLL DIM. (m) width x length	ROLLS per PALLET	m² per PALLET
ARTICA MINERAL PL 3,5 KG	-	3,5	1 x 10	33	330
ARTICA MINERAL PL 4 KG	-	4	1 x 10	30	300
ARTICA MINERALPL 4,5 KG	-	4,5	1 x 10	27	270

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.



ARTICA MINERAL PL

SELF-ADHESIVE POLYMER-BITUMEN BPP

PREFABRICATED WATERPROOFING MEMBRANE

O.N. Notice code:	1370 (referred only to EN 13707 norm)
FPC certificate number:	1370-CPR-0042 (referred only to EN 13707 norm)
Reinforcement type:	Reinforced and stabilized non-woven polyester mat.
Compound type:	Bitumen modified with Polypropylene (BPP) adhesive on the lower side.
Surface finishing:	Upper side: slate granules / coloured slate / ceramic granules. Lower side: silicone film to be removed during application
Laying method:	Thermo-adhesive / self-adhesive - propane-gas light flame - hot air - mechanical fastening.

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

TEST DESCRIPTIONSTANDARDSM/UARTICA MISSOFARTICA N.5,5 KGARTICA MINERALPL,4ARTICA MINERALPL,3,5 KGARTICA MINERALPL,3,5 KGCOLLANCESReference norms<	TEST DESCRIPTION	STANDARDS	M / U	NOMINAL VALUES			
Interference norms Interference norms EN 13859-1 EN 13859-1 EN 13859-1 Use Interference norms				MINERAL PL	MINERAL PL 4	MINERAL PL	TOLERANCES
UND Interval Interval Interval Interval Interval Interval Interval Valib defects UNI EN 1880-1 Pass the test Pas	Reference norms						
Viable defects UNIE N 1890-1 - Pass the test Pass the test Pass the test Pass the test Image the test Pass the test Image the test	Use	-	-				-
Wath UNI EN 1848-1 M 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 Max Thickness UNI EN 1849-1 Mm - - - ± 0.2 Mass per unk area UNI EN 1849-1 Mm - - - ± 0.2 Watertightness (6 method) UNI EN 1928 Kpa 60 - Pass the test	Visible defects	UNI EN 1850-1	-	Pass the test			-
Straightness UNI EN 1848-1 Mm 20 mm x 10 m 20 mm x 10 m 20 mm x 10 m Max Thickness UNI EN 1848-1 Mm - - ±0.2 Mass per unit area UNI EN 1849-1 Mm - - ±0.2 Mass per unit area UNI EN 1849-1 Mg - - ±0.2 Mass per unit area UNI EN 1849-1 Mg - - - ±0.2 Waterightness (B method) UNI EN 1849-1 Mg - - Froot Froot Froot Froot - - - - - - Statistica -	Length	UNI EN 1848-1	m	10,00 - 1%	10,00 - 1%	10,00 - 1%	Min.
Thickness UNI EN 1849-1 Mm Image: Marce	Width	UNI EN 1848-1	М	1,00 - 1%	1,00 - 1%	1,00 - 1%	Min.
Mass per unit area UNI EN 1849-1 kg/m² 3.5 4 4.5 ± 10% Watertightness (B method) UNI EN 1928 Kpa 60 - Pass the test 60 - Pass	Straightness	UNI EN 1848-1	Mm	20 mm x 10 m	20 mm x 10 m	20 mm x 10 m	Max
Material MatrixData MatrixReginGeneral MatrixReginGeneral MatrixWaterightness (B method)UNI EN 1928Kpa60 - Pass the test60 - Pass the test60 - Pass the test60 - Pass the testKpa Min. ≥ 10External fire exposure behaviourEN 13501-5FroofFroofFroofFroof-Sheer resistance of jointsUNI EN 12317-1N/S0mm450 / 350450 / 350450 / 350-20%Water vapour transmissionUNI EN 12317-1N/S0mm500 / 400500 / 400500 / 400-20%Tensile strenght L/T (max load)UNI EN 12311-1N/SSd (m)500 / 400500 / 400500 / 400-20%Breaking elongation L/TUNI EN 12311-1N/S35 / 3535 / 3535 / 35-15 absoluteResistance to impactUNI EN 12310-1MNPDNPDNPDMin.Static load (A method)UNI EN 12310-1N150 / 150150 / 150150 / 150-30 %Dimensional stability L/TMI EN 1107-1N150 / 150150 / 150150 / 15030 %Resistance to learing L/TUNI EN 1230C-100100100Min.Resistance at elevated temperatureUNI EN 1230°C100100100Min.Resistance at elevated temperatureUNI EN 1209%Max loss 30%Max loss 30%Max loss 30%Mineral surface adhesionUNI EN 1226N50mmNPDNPDNPDNPDVin realisting through long t	Thickness	UNI EN 1849-1	Mm	-	-	-	± 0,2
Lateral fire appoure behaviourEN 13501-5FrootFrootFrootFrootReaction to fireEN 13501-1ClassNPDNPDNPDShear resistance of jointsUNI EN 12317-1N50mm450 / 350450 / 350450 / 350-20%Water vapour transmissionUNI EN 12317-1N50mm450 / 350450 / 350450 / 350-20%Tensile strenght L/T (max load)UNI EN 12311-1N50mm500 / 400500 / 400500 / 400-20%Breaking elongation L/TUNI EN 12311-1%35 / 3535 / 3535 / 35-15 absoluteResistance to impactUNI EN 12311-1%35 / 3535 / 3535 / 35-15 absoluteResistance to tearing L/TUNI EN 12310-1MNPDNPDMPDMin.Resistance to tearing L/TUNI EN 12310-1N150 / 150150 / 150150 / 150-30 %Dimensional stability L/TMI EN 1107-1% ± 0.3 ± 0.3 ± 0.3 ± 0.3 ± 0.3 ± 0.3 Min.Resistance at elevated temperatureUNI EN 1109°C-15-15-15Min.Resistance at elevated temperatureUNI EN 1297 UNI EN 1210°C100100100Min.Resistance at elevated temperatureUNI EN 1297 UNI EN 1226N50mmNPDNPDNPDMax valueArtificial ageing through long term exposure ut UNI rediations combined with temperature UNI EN 1297 UNI EN 1297 UNI EN 1297 UNI EN 1297 UNI EN 1297 UNI EN	Mass per unit area	UNI EN 1849-1	kg/m²	3,5	4	4,5	± 10%
Reaction to fire EN 13501-1 Class NPD NPD NPD NPD Shear resistance of joints UNI EN 12317-1 N/50mm 450/350 450/350 450/350 -20% Water vapour transmission UNI EN 12311-1 N/50mm 500/400 500/400 500/400 -20% Tensile strenght L/T (max load) UNI EN 12311-1 N/50mm 500/400 500/400 500/400 -20% Breaking elongation L/T UNI EN 12311-1 % 35/35 35/35 35/35 15 absolute Resistance to impact UNI EN 12210-1 M NPD NPD NPD Min. Static load (A method) UNI EN 12310-1 N 150/150 150/150 150/150 -30 % Dimensional stability L/T UNI EN 1107-1 A method % ± 0.3 ± 0.3 ± 0.3 ± 0.3 ± 0.3 ± 0.3 ± 0.3 ± 0.3 150/150 150/150 Min. Resistance at elevated temperature UNI EN 1120* °C 100 100 100 Min.	Watertightness (B method)	UNI EN 1928	Кра	60 - Pass the test	60 - Pass the test	60 - Pass the test	Kpa Min. ≥ 10
Shear resistance of joints UNI EN 12317-1 N/50mm 450 / 350 450 / 350 450 / 350 -20% Water vapour transmission UNI EN 1931 χ^{μ}_{d} 290 290 290 ± 60 Tensile strenght LT (max load) UNI EN 12311-1 N/50mm 500 / 400 500 / 400 500 / 400 500 / 400 -20% Breaking elongation LT UNI EN 12311-1 % 35 / 35 35 / 35 35 / 35 -15 absolute Resistance to impact UNI EN 12310-1 % 350 / 450 NPD NPD Mnn. Static load (A method) UNI EN 12310-1 N 150 / 150 150 / 150 150 / 150 -30 % Dimensional stability LT UNI EN 1109 °C -15 -15 -15 Mn. Flexibility at low temperature UNI EN 1100 °C 100 100 100 Mn. Flexibility at low temperature after ageing UNI EN 1209 % Max loss 30% Max value Artificial a	External fire exposure behaviour	EN 13501-5	-	Froof	Froof	Froof	-
Water vapour transmission UNI EN 1931 Sd (m) Sd (m) 290 290 290 290 ±60 Tensile strenght L/T (max load) UNI EN 12311-1 N/50mm 500 / 400 500 / 400 500 / 400 200 200 ±60 Breaking elongation L/T UNI EN 12311-1 % 35 / 35 <td>Reaction to fire</td> <td>EN 13501-1</td> <td>Class</td> <td>NPD</td> <td>NPD</td> <td>NPD</td> <td>-</td>	Reaction to fire	EN 13501-1	Class	NPD	NPD	NPD	-
Water vapour transmission UNI EN 1931 Sd ^f (m) 290 290 290 290 ± 60 Tensile strenght L/T (max load) UNI EN 12311-1 N/50mm 500 / 400 500 / 400 500 / 400 500 / 400 -20% Breaking elongation L/T UNI EN 12311-1 % 35 / 35 35 / 35 35 / 35 35 / 35 -15 absolute Resistance to impact UNI EN 12310-1 Mm NPD NPD NPD Min. Static load (A method) UNI EN 12310-1 N 150 / 150 150 / 150 150 / 150 -30 % Dimensional stability L/T UNI EN 1107-1 A method % ± 0,3 t0,10	Shear resistance of joints	UNI EN 12317-1	N/50mm	450 / 350	450 / 350	450 / 350	-20%
Breaking elongation L/TUNI EN 12311-1% $35/35$ $35/35$ $35/35$ $35/35$ -15 absoluteResistance to impactUNI EN 12691MmNPDNPDNPDMPDStatic load (A method)UNI EN 12730KgNPDNPDNPDMin.Resistance to tearing L/TUNI EN 12310-1N150/150150/150150/15050/150-30 %Dimensional stability L/TUNI EN 12310-1N150/150150/150150/150-30 %Dimensional stability L/TUNI EN 1109°C-15-15Min.Fiexibility at low temperatureUNI EN 1109°C100100100Min.Fiexibility at low temperatureUNI EN 1110°C100100100Min.Fiexibility at low temperature after ageingUNI EN 1239%Max loss 30%Max loss 30%Max valueArtificial ageing through long term exposure at UV radiations combined with temperatureUNI EN 1297 UNI EN 1296 UNI EN 1296 	Water vapour transmission	UNI EN 1931		- 290		- 290	
Resistance to impactUNI EN 12691MmNPDNPDNPDNPDStatic load (A method)UNI EN 12730KgNPDNPDNPDMin.Resistance to tearing LTUNI EN 12730KgNPDNPDNPDMin.Resistance to tearing LTUNI EN 12310-1N150 / 150150 / 150150 / 150-30 %Dimensional stability LTMII EN 1107-1N $150 / 150$ 150 / 150150 / 150-30 %Fiexibility at low temperatureUNI EN 1109°C-15-15150 / 150Min.Fiexibility at low temperatureUNI EN 1109°C100100100Min.Fiexibility at low temperature after ageingUNI EN 1296 UNI EN 1203°C100100100-10°CMineral surface adhesionUNI EN 1297 UNI EN 1296 UNI EN 1296 <td>Tensile strenght L/T (max load)</td> <td>UNI EN 12311-1</td> <td>N/50mm</td> <td>500 / 400</td> <td>500 / 400</td> <td>500 / 400</td> <td>-20%</td>	Tensile strenght L/T (max load)	UNI EN 12311-1	N/50mm	500 / 400	500 / 400	500 / 400	-20%
Static load (A method)UNI EN 12730KgNPDNPDNPDResistance to tearing L/TUNI EN 12310-1N150 / 150150 / 150150 / 150-30 %Dimensional stability L/TUNI EN 12310-1N $\pm 0,3$ <t< td=""><td>Breaking elongation L/T</td><td>UNI EN 12311-1</td><td>%</td><td>35 / 35</td><td>35 / 35</td><td>35 / 35</td><td>-15 absolute</td></t<>	Breaking elongation L/T	UNI EN 12311-1	%	35 / 35	35 / 35	35 / 35	-15 absolute
Resistance to tearing LTUNI EN 12310-1N150 / 150150 / 150150 / 150-30 %Dimensional stability LTUNI EN 12310-1N150 / 150150 / 150150 / 150-30 %Dimensional stability LTUNI EN 1107-1 A method% $\pm 0,3$ $\pm 0,3$ $\pm 0,3$ $\pm 0,3$ $\pm 0,3$ $\pm 0,3$ $Min.$ Flexibility at low temperatureUNI EN 1109°C-15-15-15Min.Flow resistance at elevated temperatureUNI EN 1110°C100100100Min.Flexibility at low temperature after ageingUNI EN 1209 UNI EN 1210°C100100100Min.Flexibility at low temperature after ageingUNI EN 1239 UNI EN 1231°C100100100-10°CMineral surface adhesionUNI EN 1236 	Resistance to impact	UNI EN 12691	Mm	NPD	NPD	NPD	Min.
Dimensional stability L/TUNI EN 1107-1 A method% ± 0.3 Min explores on the explo	Static load (A method)	UNI EN 12730	Kg	NPD	NPD	NPD	Min.
Dimensional stability L1A method $\%$ ± 0.3 ± 0.3 ± 0.3 ± 0.3 ± 0.3 100 Flexibility at low temperatureUNI EN 1109 $^{\circ}$ C -15 -15 -15 Min.Flow resistance at elevated temperatureUNI EN 1100 $^{\circ}$ C 100 100 100 Min.Flexibility at low temperature after ageingUNI EN 1296 UNI EN 1110 $^{\circ}$ C 100 100 100 100 -10° CMineral surface adhesionUNI EN 12039 $\%$ Max loss 30%Max loss 30%	Resistance to tearing L/T	UNI EN 12310-1	Ν	150 / 150	150 / 150	150 / 150	-30 %
Flow resistance at elevated temperatureUNI EN 1110°C100100Min.Flexibility at low temperature after ageingUNI EN 1296 UNI EN 1110°C100100100Min.Flexibility at low temperature after ageingUNI EN 1296 UNI EN 1110°C10010010010010010°CMineral surface adhesionUNI EN 12039%Max loss 30%Max valueArtificial ageing through long term exposure at UV radiations combined with temperature and heat - Tensile strengthUNI EN 1297 UNI EN 12311-1N/50mmNPDNPDNPDNPD $h^{\pm} 50\%$ initial valueArtificial ageing through long term exposure at UV radiations combined with temperature and heat - WatertightnessUNI EN 1297 UNI EN 1296 UNI EN 1	Dimensional stability L/T		%	± 0,3	± 0,3	± 0,3	Min.
Flexibility at low temperature after ageing UNI EN 1296 UNI EN 1110 °C 100 100 100 -10°C Mineral surface adhesion UNI EN 12039 % Max loss 30% Max value Artificial ageing through long term exposure and heat - Tensile strength UNI EN 1297 UNI EN 1296 UNI EN 1231-1 N/50mm NPD NPD NPD NPD NPD ± 50% initial value Artificial ageing through long term exposure and heat - Tensile strength UNI EN 1297 UNI EN 1231-1 N/50mm NPD NPD NPD NPD kpa ≥ 60 Vatertightness UNI EN 1296 UNI EN 1296 UNI EN 1298 Class NPD NPD NPD Kpa ≥ 60 Watertightness after artificial ageing through long term exposure at high temperatures UNI EN 1296 UNI EN 1296 Kpa - - Kpa Min. ≥ 10 Watertightness determination after exposure UNI EN 1847 Kpa - - Kpa Min. ≥ 10	Flexibility at low temperature	UNI EN 1109	°C	-15	-15	-15	Min.
Preschilty at low temperature after ageing UNI EN 1110 C 100	Flow resistance at elevated temperature	UNI EN 1110	°C	100	100	100	Min.
Artificial ageing through long term exposure at UV radiations combined with temperature and heat Tensile strength UNI EN 1297 UNI EN 1236 UNI EN 12311-1 N/50mm NPD NPD NPD NPD ± 50% initial value Artificial ageing through long term exposure at UV radiations combined with temperature and heat Tensile strength UNI EN 1297 UNI EN 1297 UNI EN 1297 UNI EN 1298 UNI EN 1928 A method Class NPD NPD NPD Kpa ≥ 60 Watertightness after artificial ageing through long term exposure at high temperatures UNI EN 1296 UNI EN 1298 Kpa - - Kpa Min. ≥ 10 Watertightness determination after exposure UNI EN 1847 Kpa - - Kpa Min. ≥ 10	Flexibility at low temperature after ageing		°C	100	100	100	-10°C
at UV radiations combined with temperature and heat DNI EN 1296 N/50mm NPD NPD NPD ± 50% initial value - Tensile strength UNI EN 1236 N/50mm NPD NPD NPD ± 50% initial value Artificial ageing through long term exposure at UV radiations combined with temperature and heat UNI EN 1297 UNI EN 1296 Class NPD NPD NPD Kpa ≥ 60 - Watertightness UNI EN 1296 UNI EN 1296 Kpa - - Kpa Min. ≥ 10 Watertightness determination after exposure UNI EN 1847 Kpa Kpa Min. ≥ 10	Mineral surface adhesion	UNI EN 12039	%	Max loss 30%	Max loss 30%	Max loss 30%	Max value
at UV radiations combined with temperature and heat WatertightnessUNI EN 1296 LUNI EN 1928 A methodClassNPDNPDNPDKpa ≥ 60Watertightness after artificial ageing through long term exposure at high temperaturesUNI EN 1296 UNI EN 1296KpaKpa Min. ≥ 10Watertightness determination after exposureUNI EN 1847KpaKpa Min. ≥ 10	at UV radiations combined with temperature and heat	UNI EN 1296	N/50mm	NPD	NPD	NPD	
Iong term exposure at high temperatures UNI EN 1928 Npa Image: Construction of the exposure UNI EN 1928 Npa Image: Construction of the exposure Npa Min. 2 10 Watertightness determination after exposure UNI EN 1847 Known	at UV radiations combined with temperature and heat	UNI EN 1296 UNI EN 1928	Class	NPD	NPD	NPD	Kpa ≥ 60
			Кра	-	-	-	Kpa Min. ≥ 10
			Кра	-	-	-	Kpa Min. ≥ 10