



CHRONO MM PL

COMPOUND

The waterproofing compound of CHRONO membranes is made up of a mix of empty residue distilled bitumen modified with elastomeric 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 CHRONO MM 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 excellent dimensional stability. Such characteristics allow to use these membranes also on mechanically and thermally stressed surfaces.

OUTSIDE FINISHING


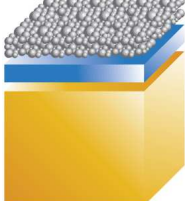

The CHRONO MM PL membrane is treated on the upper side with non-stick filler; other finishings such as polymeric film and non-woven may also be used. The lower side is finished with PE torch-on film; other finishings such as aggregate, polymeric films, non-woven non-stick polymers may also be used.

LAYING METHOD

The laying deck shall be clean, smooth and dry. For a better adhesion it may be previously treated either with 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 CHRONO MM PL membranes are planned to be used as under and middle layer, under heavy protection, against humidity from soil.

		
Under and middle layer membranes	Under heavy protection membranes	Membranes against humidity from soil

PACKAGING

PRODUCT	THICKNESS (mm)	WEIGHT (kg/m ²)	ROLL DIM. (m) width x length	ROLLS per PALLET	m ² per PALLET
CHRONO MM 3 PL	3	-	1 x 10	36	360
CHRONO MM 4 PL	4	-	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.



CHRONO MM PL

O.N. Notice code:	1370
FPC certificate number:	1370-CPR-0042
Reinforcement type:	Reinforced and stabilized non-woven polyester mat.
Compound type:	Bitumen modified with Polypropylene (BPP).
Surface finishing:	Upper side: aggregate / PE / PP polymeric film, NON-WOVEN, non-stick polymers. 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
			CHRONO MM 3 PL	CHRONO MM 4 PL	
Reference norms			EN 13707	EN 13707 / EN 13969	
Use	-	-	Under and middle layer	Under and middle layer / Under heavy protection / Against humidity from soil	-
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	3	4	- 0,4
Watertightness (B method)	UNI EN 1928	Kpa	60 - Pass the test	60 - Pass the test	Kpa Min. ≥ 10
External fire exposure behaviour	EN 13501-5	-	Froof	Froof	-
Reaction to fire	EN 13501-1	Class	NPD	NPD	-
Tensile strenght L/T (max load)	UNI EN 12311-1	N/50mm	400 / 300	400 / 300	-20%
Water vapour trasmission	UNI EN 1931 (2002)	μ Sd (m)	20.000 NPD	20.000 NPD	/ ± 60
Breaking elongation L/T	UNI EN 12311-1	%	30 / 30	30 / 30	-15 absolute
Resistance to impact	UNI EN 12691	mm	700	700	Min.
Resistance to tearing L/T	UNI EN 12310-1	N	130 / 130	130 / 130	-30 %
Static load (A method)	UNI EN 12730	Kg	10	10	Min.
Resistance to tearing L/T	UNI EN 12310-1	N	130 / 130	130 / 130	-30%
Dimensional stability L/T	UNI EN 1107-1 A method	%	± 0,3	± 0,3	Min.
Flexibility at low temperature	UNI EN 1109	°C	0	0	Min.
Flow resistance at elevated temperature	UNI EN 1110	°C	110	110	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

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