


Product:	MASTERMAX 4 PLUS 150	
Supplier:	MASTERPLAST International Kft., 8143 Sárszentmihály, Árpád u. 1/a. (www.masterplastinternational.com)	
Size, packaging:	1,5m*50m - 75m2/roll	
Application:	Vapour-permeable underlay for ventilated discontinuous roofings-, furthermore for ventilated wall structures with not open-joints (where it is not exposed to direct UV-radiation). Used as a subsidiary protective layer against moisture (liquid water penetration, wind-blown snow) and wind. The product is laid directly over the thermal insulation, timber boarding or other solid support, parallel to the eaves with minimum 10 cm overlapping and the printed side to the roofing/cladding. The underlay is fixed along the rafters with counter battens (min. 50/50mm). These battens lift the tiling battens off the underlay and create an effective drainage path to the eaves and ridge.	
Material:	Vapour-permeable and watertight function membrane with mesh reinforcement and polypropylen layer protection on both sides.	

Properties	Relevant standards	Technical data	Unit	Tolerance
Length	EN 1848 - 2	nominal	m	(-)0%
Width	EN 1848 - 2	150	cm	(-)0,5%/(+)1,5%
Straightness	EN 1848 - 2	30	mm/m	max
Mass per unit area	EN 1849 - 2	150	g/m <sup>2</sup>	(±)10
Reaction to fire	EN 13501-1, EN ISO 11925-2	E		
Resistance to water penetration	EN 1928	W1		
Water vapour transmission (Sd)	EN ISO 12572	0,02	m	(-0,01; +0,035)
Tensile strength (MD/XD)	EN 12311-1	430 / 380	N/5cm	(±)30 / (±)50
Elongation at maximum tensile force (MD/XD)	EN 12311-1	35-70 / 50-90	%	
Resistance to tearing (MD/XD)	EN 12310-1	320 / 340	N	(±)50 / (±)50
Resistance to penetration of air	EN 12114	< 0,1	m <sup>3</sup> /(m <sup>2</sup> h50Pa)	
Dimensional stability (MD/XD)	EN 1107-2	1 / 1	%	max
Flexibility at low temperature	EN 1109	(-)40	°C	
<b>Changing of properties after artificial ageing</b>				
Resistance to water penetration	EN 1928	W1		
Tensile strength (MD/XD)	EN 12311-1	25 / 25	%	max
Elongation (MD/XD)	EN 12311-1	35 / 35	%	max
<b>Additional properties</b>				
Temperature resistance		(+)80	°C	max
Resistance to UV		1	months	max

**Storage and handling**

Under dry conditions, protected against atmospheric exposure, especially sun-radiation and other heat sources as well as against moisture and rain.

**Guarantee, warranty:**

In accordance with the current legislations and the conditions of the distributor. The observation of the application rules of the product and presentation of the invoice constitute a prerequisite for possible future warranty claims. The installed underlay should not be left uncovered for longer than it is absolutely necessary (max. 2 weeks), but until finishing the roofing, application of additional covering (e.g. PE foil) is advised to ensure the protection of interiors against wetness. Masterplast International Kft. shall be not liable for damages and neither for consequential damages resulting from water infiltration through the underlay during the construction period. Any damaged areas (result from construction, carelessness, weather conditions) shall be repaired or replaced before completion!

**Standards, specifications**

EN 13859-1, EN 13859-2

**Health and safety**

No labelling required in accordance with the relevant regulation (EC) No. 1907/2006 of the European Parliament and of the Council (REACH).

This datasheet corresponds to our current knowledge, experiences and general informations on the subject, but may be revised as new knowledge and/or experience becomes available. It does not imply any legally binding assurance. The product possesses the given technical characteristics. Since all variations of end-using of the product can not be anticipated, the designer/end-user's responsibility to make sure of the suitability of this product for particular purposes, structures. The manufacturer supposes essential technical skill and skillfull application during construction.

**This technical datasheet is applied to products sold by Masterplast International Kft. and valid until withdrawal or until modification.**

Since this datasheet may be subject to revision, it is the responsibility of designer/end-user to make sure of possessing the latest version of the datasheet (\*see date of issuing). Most recent version of this datasheet can be also accessed under [www.masterplastinternational.com](http://www.masterplastinternational.com).

Herewith the previously issued versions of this datasheets lose their validity and must be replaced by this version!