

**Technical data sheet**
**Membrana mdm<sup>®</sup> Ventia Optima 190**

Characteristic	Test method	Unit	Result	Tolerance	
				Min.	Max.
Length	EN 1848 -2	m	50		+0,5
Width	EN 1848 -2	m	1,5	-0,005	+0,005
Straightness	EN 1848 -2	-	Pass	-	-
Mass per unit area	EN 1849 -2	g/m <sup>2</sup>	190	-10	+10
Thickness	EN 1849 -2	mm	0,8	-0,2	+0,2
Reaction to fire	EN ISO 11925-2	class	E-d2	-	-
Resistance to water penetration	EN 1928 A	class	W1	-	-
Water vapour transmission Properties	EN ISO 12572 C	m	0,120	-0,05	+0,16
Resistance to penetration of air	EN 12114	m <sup>3</sup> /(m <sup>2</sup> x h x 50 Pa)	Max 0,05	-	-
Tensile properties: Maximum tensile force	EN 12311-1	N/50mm	MD 300	-50	+50
			CD 240	-40	+40
Tensile properties: elongation	EN 12311-1	%	MD 80	-40	+40
			CD 80	-40	+40
Resistance to tearing (nail shank)	EN 12310-1	N	MD 230	-50	+50
			CD 280	-50	+50
Dimensional Stability	EN 1107-2	%	1	-	-
Stability at low temperature	EN 1109	°C	-40	-	-
Artificial ageing by long term exposure to the combination Of UV radiation and elevated Temperature and heat (80°C)	Elongation EN 13859-1 annex C	%	MD 55	-25	+25
			CD 55	-25	+25
	Tensile strength EN 13859-1 annex C	N/50mm	MD 195	-30	+35
			CD 160	-30	+30
	Resistance to water penetration EN 13859-1 annex C	class	W1	-	-
	Water vapour transmission 23°C/85%RH	Lyssy	g/m <sup>2</sup> x 24h	1000	-250

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