

## Vario<sup>®</sup> Xtra Smart vapour retarder

Properties	Sign	Unit	Performance char	acteristics	Norms	
Material			Modified multilayer fill reinforced with special	-		
Lamination			Specialty non-woven made of polypropylene		-	
Fire behaviour			Class E		EN 13 501	
Dynamic diffusion equivalent air layer thickness	Sd	m	0.3 ≤ sd ≤ 20 (humidity variable) <sup>1)</sup>		EN ISO 12 572	
Static diffusion equivalent air layer thickness	S <sub>d</sub>	m	10.0 <sup>2)</sup>		EN 19 31	
Tear resistance (nail shank)		N	MD ≥ 65	CD ≥ 65	EN 13 984	
Tensile strength		N/50 mm	MD ≥ 140	CD ≥ 117	EN 13 984	
Mass per unit area		g/m²	ca. 80		-	
Watertightness			Type B		EN 13 984	
Resistance against water penetration			W1		EN 13 859	
Temperature resistance		°C	- 40 up to + 80		-	
UV resistance			1 month (< 55 MJ/m²) – immediate coverage recommended, especially in times of high UV-load (summer) <sup>3)</sup>		-	
Aroma density			Protects from fumigation of old wood preservatives like o.g. Lindan or PCP into the living space		-	
Instructions for use	-> ISOVE -> ISOVE -> ISOVE -> ISOVE Insulation guarantee Especially twisting, fluit Therefore and airtight Their distaindustry au Likewise ti	As vapour retarder in connection with:  -> ISOVER Vario® sealants & sealing tapes -> ISOVER Vario® tapes -> ISOVER underlays  Insulation has to be installed in a way that the position permanence and function are guaranteed permanently.  Especially mechanic deformations occurring during construction such as shrinking, twisting, flection under service load etc. are not to be excluded.  Therefore in every case – also when no interior trim is being attached – the insulation and airtight layer have to be secured mechanically by profiles or battens.  Their distance should be based on the recommendation of the gypsum cardboard industry and should not exceed max. 50 cm.  Likewise this mechanic security of airtight and insulation layer has to occur before a Blower-Door-Test.				
A+ (VOC-Decree)  ÉMISSIONS DANS L'AIR INTÉRIEUR'  A+ A B C	* Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentant un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions).  (Information about the degree of emission of volatile substances in indoor air that depict a toxic risk during inhalation, on a scale of A+ (very low emission) to C (high emission)).					

<sup>1)</sup> The variable s<sub>d</sub>-value of the ISOVER Vario<sup>®</sup> Xtra can only be registered by a dynamic calculation program. The water vapour diffusion resistance in dependence of the average relative air humidity is deposited in the relevant simulation software (e.g. WUFI<sup>®</sup> from Fraunhofer Institut für Bauphysik IBP). <sup>2)</sup> Static diffusion equivalent air layer thickness for the calculation method according to Glaser.

<sup>&</sup>lt;sup>3)</sup> The energy which has to be endured by the membranes in the UV-test is 55 MJ/m². Transferred to the average global radiation in Central Europe this corresponds to 3 months UV exposure/resistance. As the UV-load can be higher depending on the season, the resistance might be shorter. We always recommend to immediately cover the membranes and due to changes in the UV-load over the year the immediate coverage is even more crucial in the summer time.

Delivery forms								
Thickness mm	m²/roll	Pieces/package	Rolls/pallet	Length mm	Width mm	$R_D$		
Ca. 0.22	60	-	42	40,000	1,500	-		

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