

## Frame extension elements for aluminium windows Standard

Chipboard	Symbol	Test method	Unit	Value
Classification	P5 in acc. with EN 312, boards for load-bearing purposes in damp environments			
Emission category	E1			
Certification	PEFC-certified			
Gross density	$\rho_a$		kg/m <sup>3</sup>	~715–740
Thermal conductivity	$\lambda_D$		W/mK	0.140
Fire behaviour		EN 13501-1		D-s2, d0
Thickness tolerance within and between the boards		EN 324-1	mm	±0.3
Board moisture		EN 322	%	5–13
Formaldehyde potential category E1		EN 120	mg/100 g	Max. 8.0
Thickness swelling (after 24 hrs)		EN 317	%	10.0
Bending strength		EN 310	N/mm <sup>2</sup>	16.0
Bending elasticity modulus		EN 310	N/mm <sup>2</sup>	2400
Transverse tensile strength		EN 319	N/mm <sup>2</sup>	0.45
Transverse tensile strength after boil test		EN 1087-1	N/mm <sup>2</sup>	0.14
Water vapour permeability (density: 600 kg/m <sup>3</sup> )		EN 13986	$\mu$ , damp	15
			$\mu$ , dry	50
Degree of sound absorption			250–500 Hz	0.10
			1000–2000 Hz	0.25
Swelling and shrinkage in panel plane (Change of board moisture: 1%)			%	0.02–0.05

Plywood	Symbol	Test method	Unit	Value
Classification				AW100
Gross density	$\rho_a$	EN 323	kg/m <sup>3</sup>	~420
Thermal conductivity	$\lambda_D$		W/mK	0.130
Emission category		UNI EN 717/2	mg HCHO/m <sup>2</sup> h	E1
Bending strength (longitudinal)		EN 310	N/mm <sup>2</sup>	28
Bending strength (lateral)		EN 310	N/mm <sup>2</sup>	32
Elasticity modulus (longitudinal)		EN 310	N/mm <sup>2</sup>	3600
Elasticity modulus (lateral)		EN 310	N/mm <sup>2</sup>	3800

PUR rigid foam	Symbol	Test method	Unit	Value
Gross density	$\rho_a$	EN 1602	kg/m <sup>3</sup>	31–33
Thermal conductivity	$\lambda_D$	EN 12667	W/mK	0.022–0.024
Fire behaviour		DIN 4102		B3
Compressive strength		EN 826	kPa	200–240
Bending strength		EN 12089	kPa	250–300
Transverse tensile strength		EN 1607	kPa	320–380
Shear strength		EN 12090	kPa	150–200
Shear resistance		EN 12090	kPa	170–230
Closed-cell content		ISO 4590	%	90–95
Water absorption		EN 12087	%	3
Applicable in temperature range			°C	–20 to +120

Expanded polystyrene rigid foam with graphite additive (EPS lambda)	Symbol	Test method	Unit	Value
Gross density	$\rho_a$	1602	kg/m <sup>3</sup>	18
Thermal conductivity	$\lambda_D$	279	W/mK	0.030
Specific thermal capacity	c		Wh/(kg·K)	0.39
Water vapour diffusion resistance factor	$\mu$	12086		30
Tensile strength, vertical to panel board	$\sigma_{mt}$	1607	kPa	≥80
Fire behaviour classification in acc. with EN		13501-1		E
Fire behaviour classification in acc. with VKF		VKF	BKZ	5.1
Fire behaviour group		VKF		RF2 (cr)
Top application limit temperature, non-weight-bearing			°C	75
Cell content				Air

Wood	Symbol	Test method	Unit	Value
Type	Spruce pine			
Certification	PEFC-certified			
Thermal conductivity	$\lambda_D$		W/mK	0.140