

Damur® dividing wall systems

Chipboard	Symbol	Test method	Unit	Value
Classification	P5 (V100), chipboards for load-bearing purposes in damp environments			
Type	Sanded on both sides			
Certification	PEFC-certified			
Gross density	ρ_a		kg/m ³	~715
Thermal conductivity	λ_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 ²	16.0
Bending elasticity modulus		EN 310	N/mm ²	2400
Transverse tensile strength		EN 319	N/mm ²	0.45
Transverse tensile strength after boil test		EN 1087-1	N/mm ²	0.14
Water vapour permeability (density: 600 kg/m ³)		EN 13986	μ , damp μ , dry	15 50
Degree of sound absorption			250–500 Hz 1000–2000 Hz	0.10 0.25
Swelling and shrinkage in panel plane (Change of board moisture: 1%)			%	0.02–0.05

MDF board	Symbol	Test method	Unit	Value
Classification	Medium-density fibreboard, low-formaldehyde quality class E1			
Gross density	ρ_a	EN 323	kg/m ³	700–750
Thermal conductivity	λ_D	DIN 52612	W/mK	0.140
Fire behaviour		DIN 4102		B2
Bending strength		EN 310	N/mm ²	20
Bending elasticity modulus		EN 310	N/mm ²	2200
Transverse tensile strength		EN 319	N/mm ²	0.55
Thickness swelling (after 24 hrs)		EN 317	%	12.0
Formaldehyde content		EN 120	mg/100 g	8/7.0

OSB board	Symbol	Test method	Unit	Value
Classification	Oriented strand board, low-formaldehyde quality class E1, for load-bearing purposes in damp environments			
Gross density	ρ_a	EN 323	kg/m ³	600
Thermal conductivity	λ_D	EN 13986	W/mK	0.130
Fire behaviour		EN 13501-1		D-s2, d0
Transverse tensile strength			N/mm ²	0.18
Water vapour diffusion resistance factor	μ			200/300
Thickness swelling (after 24 hrs)		EN 317	%	15.0

Cement-bonded chipboard	Symbol	Test method	Unit	Value
Gross density	ρ_a		kg/m ³	1200
Thermal conductivity	λ_D	EN 13986, table 11	W/mK	0.230
Fire behaviour		EN 13501-1		A2-s1, d0
Bending strength		0743T027	N/mm ²	≥9.0
Bending elasticity modulus (not load-bearing)		0743T027	N/mm ²	≥4000
Tensile strength		0743T027	N/mm ²	≥0.5
Tensile strength per cycles		0743T027 0743T026	N/mm ²	≤0.3
Durability (swelling)		0743T026	%	Max. 1.5
Durability per cycles		0743T026	%	Max. 1.5
Structural properties – strength (elasticity modulus)		0743T027 EN 789/EN 1058	N/mm ²	≥4500
Sound absorption		EN 13986, table 10	250–500 Hz 1000–2000 Hz	0.10 0.30
Steam permeability		EN 13986, table 9	μ , damp μ , dry	30 50
Formaldehyde reduction		EN 13896, supplement B	Class	E1
Impact resistance		0743T019	Possibility for further use	

Expanded rigid polystyrene foam (EPS)	Symbol	Test method	Unit	Value
Gross density	ρ_a	1602	kg/m ³	15
Thermal conductivity	λ_D	279	W/(m·K)	0.038
Specific thermal capacity	c		W/(m·K)	0.39
Water vapour diffusion resistance factor	μ	12086		40
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)
Compression stress at 10% compression	σ_{10}	826	kPa ³⁾	≥ 60
Creep behaviour under pressure (50 years, compression 2%)	σ_C	1606	kPa ³⁾	12
Top application limit temperature, non-weight-bearing			°C	75
Cell content				Air

Rock wool	Symbol	Test method	Unit	Value
Gross density	ρ_a	EN 1602	kg/m ³	165
Thermal conductivity	λ_D	EN 12667	W/mK	0.045
Fire behaviour		EN 13501-1		A1
Compression stress at 10% compression	σ_{10}	EN 826	kPa	≥90
Tensile strength, vertical to panel plane	σ_{ml}	EN 1607	kPa	≥25
Water absorption, short-term	Wp	EN 1609	kg/m ²	≤1
Water absorption, long-term	Wp	EN 12087	kg/m ²	≤3
Melting point		EN 4102-17	°C	>1000
Maximum application temperature			°C	250