



Test Results | THERMORY®Ash | Absorbency

STABILITY

TESTED

- ▶ Moisture content given in a set of specific temperature and relative humidity conditions and the resulting increase or decrease in moisture content in THERMORY®Ash.

RESULTS

- ▶ The moisture content in comparison to standard kiln-dried woods is significantly reduced by thermal modification of THERMORY®Ash.

Tested results

Test object	Relative air humidity 35%			Relative air humidity 65%			Relative air humidity 95%			K_{pl}	K_{pp}	ρ_o
	ρ_w	w	w_t	ρ_w	w	w_t	ρ_w	w	w_t			
Larch	620	9,5	7,8	618	12,2	11,0	616	14,5	23,0	0,43	0,48	588
Thermo treated ash	624	4,1		627	6,1		631	7,5		0,38	0,42	609
Birch	575	7,4	7,8	588	10,5	11,0	587	14,2	23,0	0,33	0,18	553
Thermo treated birch	604	4,7		609	6,7		616	8,3		0,51	0,40	588
Oak	682	7,5	7,8	703	9,8	11,0	688	12,3	23,0	0,37	0,50	647
Thermo treated oak	630	4,2		633	5,5		635	6,2		0,31	0,26	612

w - moisture content measured by test, %

w_t - theoretical equilibrium moisture content, %

ρ_o - absolute density of KD wood, kg/m³

ρ_w - density on moisture level w , kg/m³

K_{pl} - swelling factor in board width %/% (growth in width per growth of moisture content in 1%)

K_{pp} - swelling factor in board thickness %/% (growth in width per growth of moisture content in 1%)

Theoretical calculated data

Test object	Relative air humidity 35%		Relative air humidity 65%		Relative air humidity 95%		K_{pl}	K_{pp}	ρ_o
	ρ_w	w	ρ_w	w	ρ_w	w			
Larch	624	7,8	638	11,0	690	23,0	0,43	0,48	588
Thermo treated ash	626	3,4	637	5,5	673	11,9	0,38	0,42	609
Birch	593	7,8	610	11,0	670	23,0	0,33	0,18	553
Termobirch	617	5,0	620	7,0	652	13,4	0,51	0,40	588
Oak	687	7,8	704	11,0	763	23,0	0,37	0,50	647
Termooak	637	4,4	647	6,2	677	11,6	0,31	0,26	612