

TECHNICAL FILE TWINSON

application: O-Wall
P9576

date: 01.12.2011
version: v3

		prEN 15534-1	based on	specific property	unit	value	
MATERIAL CHARACTERISTICS	physical properties	density	§ 6.1	ISO 1183-1/A		kg/dm ³	1.42 ± 0.05
		moisture content	§ 6.2	ISO 16979		%	< 0.2
		HDT	§ 6.3	ISO 75-1/A		°C	70 ± 2
		vicat softening point	---	ISO 306/B50		°C	82 ± 2
	mechanical properties	impact resistance	§ 7.1.1	ISO 179-1fU	charpy	kJ/m ²	> 5
		tensile properties	§ 7.2	ISO 527-2/1B	tensile modulus	MPa	5000 ± 10%
					tensile strength	MPa	> 35
					strain at break	%	1.3 ± 10%
		flexural properties	§ 7.3.1	ISO 178	flexural modulus	MPa	5000 ± 10%
					bending strength	MPa	> 55
	bending at break				%	1.5 ± 10%	
	durability	artificial weathering (300 hours WOM)	§ 8.1.1	ISO 4892-2	discoloration	dE	< 20
		moisture resistance (28 days)	§ 8.3.1	EN 317	impact retention	%	< 20
					mass increase	%	< 8
					length increase	%	< 0.6
					width increase	%	< 1.5
	thermal properties	linear thermal expansion (-20 °C ... +60°C)	§ 9.1	ISO 11359-2	thickness increase	%	< 4
					length direction	10 ⁻⁶ K ⁻¹	20 - 25
width direction					10 ⁻⁶ K ⁻¹	45 - 50	
thermal conductivity		---	ISO/CD 22007-2	thickness	10 ⁻⁶ K ⁻¹	55 - 65	
burning behaviour	oxygen index	§ 10.1	ISO 4589-2	room temperature	W/m.K	0.2 - 0.3	
	epiradiator	---	NF P92-501		%	> 20	
	kleinbrenner	--	NBN S21-203 DIN 4102-1		class	M3 A4 B2	
PRODUCT RELATED CHARACTERISTICS	mechanical properties	impact resistance	§ 7.1.2.1	EN 477	falling mass	J	6 - 7
	durability	natural weathering (1 year Bandol)	§ 8.2	ISO 877-2	discoloration	dE	< 20
					impact retention	%	< 20
					bending strength retention	%	< 20
		boiling test	§ 8.3.3	ISO 1087-1	mass increase	%	< 8
					length increase	%	< 0.6
	width increase				%	< 1.5	
	thermal properties	heat reversion	§ 9.2	EN 479	thickness increase	%	< 4
		heat build-up	§ 9.3	ASTM D4083		%	< 0.2
	burning behaviour	single flame source	§ 10.2.1	ISO 11925-2		°C	< 40
single burning item		§ 10.2.2	EN 13823		pass	OK	
					class	D s2 d0	