

CEN TC 249

WG 13

prCEN/TS 15534 consists of the following parts, under the general title

Plastics – Wood plastics composites (WPC)

Part 1: Test methods

Part 2: General characterisation (material characteristics)

Part 3: Characteristics related to products

MATERIAL CHARACTERISTICS

DENSITY	ISO 1183-1	method A		1.398	kg/m ³
HDT	ISO 75	method A	1.80 MPa	76.3	°C
		method B	0.45 MPa	80.0	°C
		method C	8.00 MPa	58.9	°C
TENSILE PROPERTIES	ISO 527/1B	E-modulus		6019	MPa
		tensile strength		35.95	MPa
		strain at break		0.90	%
BRINELL HARDNESS	EN 1534	3 kN		174	MPa
WATER ABSORPTION	EN 317	24 hours	thickness swelling	1.44	%
			weight increase	1.06	%
FLEXURAL PROPERTIES	ISO 178	E-modulus	extrusion direction	5855	MPa
			perpendicular to extrusion direction	4578	MPa
		bending strength	extrusion direction	65.59	MPa
			perpendicular to extrusion direction	48.11	MPa
		strain at break	extrusion direction	1.30	%
			perpendicular to extrusion direction	1.20	%
TENSILE CREEP	ISO 899-1	30°C / 9 MPa	elongation 480 h	0.17	%
RESISTANCE TO SOIL INHABITING SOFT ROTTING MICRO-FUNGI	prCEN/TS 15534-1 Annex D	durability class		1	class
LINEAR THERMAL EXPANSION	ISO 11359-2	extrusion direction		0.023	mm/m°C
		perpendicular to extrusion direction		0.048	mm/m°C
		thickness variation		0.080	mm/m°C
BURNING BEHAVIOUR	ISO 4589-2	LOI		26.7	%
VICAT TEMPERATURE	ISO 306	method B50		90.1	°C
ABRASION RESISTANCE	EN 438-2	S42 / 500g		1268	Taber wear index class
REACTION TO FIRE	NF P 92-501	epiradiator		M4	class
	NBN S21-203			A4	class
	DIN 4102-1	Kleinbrenner		B2	class

DECKING CHARACTERISTICS

FRICITION COEFFICIENT	EN 13893	dry conditions	extrusion direction	0.41	---
SLIP RESISTANCE	EN 1339 Annex I	wet conditions		59	USRV
FALLING MASS	EN 477	23°C	0.5 kg / 1.4 meter	7	J
FLEXURAL PROPERTIES	EN 310	flexural modulus		6988	MPa
		flexural strength		38.44	MPa
		strain at break		1.02	%
ARTIFICIAL WEATHERING	EN 513-1	colour shift from 250 hours to 4000 hours	501	3.1	dE
			502	4.0	dE
			503	5.7	dE
			504	8.3	dE
			505	6.9	dE
			506	4.4	dE
			507	0.0	dE
			508	3.8	dE
WATER ABSORPTION	EN 317	24 hours	thickness swelling	0.32	%
			weight increase	0.51	%
WATER ABSORPTION	EN 317	28 days	thickness swelling	1.64	%
			weight increase	3.50	%
MOISTURE RESISTANCE	EN 321	flexural modulus		6514	MPa
		flexural strength		36.83	MPa
		strain at break		1.22	%
		thickness swelling		0.14	%
HEAT REVERSION	EN 479	100°C / 1 hour		0.10	%
HEAT BUILD-UP	prCEN/TS 15534-1 Annex F	BST = 50°C	501	36	°C
			502	41	°C
			503	37	°C
			504	38	°C
			505	38	°C
			506	37	°C
			507	36	°C
			508	36	°C