ECOLAN | TECHNICAL SPECIFICATIONS

MECHANICAL PROPERTIES

Specific gravity	1650 - 1770 kg/m3	(DIN 53455)
Tensile strength	36 - 42 N/mm2	(DIN 53455)
Bending strength	52 - 54 N/mm2	(DIN 53452)
E-modulus tensile	8741 - 10540 N/mm2	(DIN 53457)
E-modulus bending	8560 - -10000 N/mm2	(DIN 53453)
Elongation at fracture	-0,45% - - 0,5%	(DIN 53255)
Hardness	60-70 Barcol	(DIN EN 59)

DYNAMIC PROPERTIES

Impact (falling ball)	no fracture	(ANSI Z 124)
Thermoshock bowls	>4000 cycles 65 °Celsius / 90 sec.	
	15° Celsius / 90 sec.	(ANSI Z 124)
Scratch resistance	Wm = 94 mg (+/- 13 mg)	(DIN 53745)
Colourfastness	no change after 200 hours	(ANSI Z 124)
	light contrast after 600 hours	(ISO 105 A03)

THERMAL PROPERTIES

Thermal expansion	0,045 mm/m1 K. up to 90 °Celsius	(ASTM E 570)
Cigarette resistance	no lasting effect	(ANSI Z 124)
Hot pan test	10 minutes 180 Celsius	
	no lasting effect	(DIN 53799)

GASES, LIQUIDS, SOLIDS

Water absorption	23 °Celsius, 0,03%	(ASTM D 570)
Boiling water	no visible change	(DIN 53799)
Contact with food	contact with food allowed	(ISEGA 19392U03)
Environment	biological neutral, no chemical waste	(INT DSM)
Stains & chemicals	high chemical resistance, see data sheet	

FIRE, EXPLOSION

Flammability	Baustoffklasse B1	(DIN 4102, 05/98)
Boiling water	Klasse S4, SR2, ST2 (DB)	(DIN 5510, part 2)
	Class 1 surface spread of flame	(BS 476, part 6 and 7)
	Class 0, in accordance of national building regulations	(BS 476, part 6 and 7)
	Classement M2	(CSTB No RA02-0333)
Dust explosion	Klasse St 1	(PB 2001-1127)
Oxygen index (LOI)	27 - 32%	(ASTM 2863)

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