

Results screw extraction test:

screw dimensions: 4 x 50 mm
 drawing speed 10 mm / min (no predrilled holes)
 test with 5 screws

Tensile force average 4365 N +/- 14% deviation

1. Tensile test according to ISO 527-2 (2012)

modulus	719	MPa
yield	7,8	MPa
tensile strenght	17,2	MPa
stretch at break	478	%

2. Flexural test according to ISO 178 (2010)

modulus	572	MPa
yield	9,0	MPa
tensile strength	15,7	MPa
stretch at 16mm	6	%

3. Hardness measurement according to ISO 2039-2 32,09 HB

4. Impact according to ISO 179-1 (2000) notched 65,6 kJ/m²

5. a. Vicat temperature according to ISO 306/A50 115,20 °C
b. MFI according to ISO1133 (2005)

6. Liquid absorption according to ISO 62 0,29 %

7. Density according to ISO 1183-1 (2004) 0,960 g/cm³

8. Linear expansion coefficient 0,109 mm/m/°C

9. Flamability tests

according to DIN 4102 part 1 fire class B2
 according to EN ISO 13501-1: 2007+A1:2009 fire class E_{fl}

10. Slip resistance decking boards

according to EN 1341 pendulum test (dry) in PTV * 86 - 96
 according to EN 1341 pendulum test (wet) in PTV * 29 - 47
 * PTV 25-35 = moderate slip potential
 * PTV 36+ = low slip potential
 according to DIN 51130 ramp test (wet) R-classification R10

11. Pressure test

from 1700 N/cm² light pressure
 from 3100 N/cm² impression
 from 6300 N/cm² no more resistance

liquid bleach	chemical substance	results
commercial product	chemical substance	results
liquid bleach	NaOCl (min. 36°)	no discolouration or modification
lubricating oil	synthetic engine oil	no discolouration or modification
salad oil	corn oil	no discolouration or modification
degreaser	acetone butanone tetrachloroethylene diluted sulphuric acid diluted soda	no discolouration or modification
pool water	saturated solution of trichloro isocyanic acid	no discolouration or modification
white spirit	mixture of aliphatic hydrocarbons	no discolouration or modification
moss killer	saturated solution of iron sulphate and disodium - EDTA	no discolouration or modification
fat	heated deep-frying fatl at 180°C	Slight discolouration because of superficial melting of the plastic. <i>Remark:</i> Test with boiling oil. In the real situation oil splashes are not 180°C when they reach the boards.

test temperature : 20° C (room temperature)

test duration: 24 hours

visual test

tests executed with concentrated or less diluted solutions than available in retail

Notes:

1. Apart from extensive internal research, the material was tested by: Hogeschool Gent, University Gent (CPMT), UGent, DMT (Fachstelle für Brandschutz), FGK (Forschungsinstitu für anorganische Werkstoffe, Glas/Keramik), Geos (constructive testing), VKC (Vlaams Kunststof Centrum)

2. These test results are referring to the tested objects only. The detailed test reports can be requested for inspection.