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Tecnical information on beams, boards & bollards

Material
The material is made up of 100% high quality recycled plastic residue, mainly from the nutrition and packaging industry.

Composition
The material is composed of, in terms of percentage, a proportion of LDPE (Low Density Polyethylene), HDPE (High Density Polyethylene) and PP (Polypropylene).

Production process
The different plastics are grounded, mixed and fused together under high temperatures and pressed into moulds. During production, the material is mass coloured in order to obtain a homogenous colour.

Finish & look
The surface is knot free, evenly coloured and shows a faced, slightly shining structure.

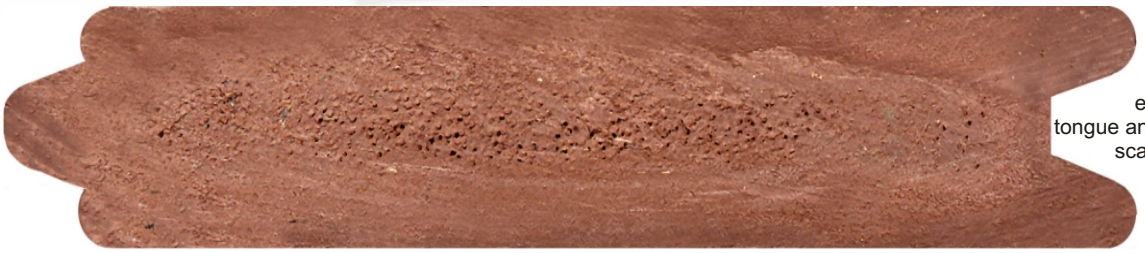
Colours
Black, brown, green or grey. The plastic is thoroughly mass coloured.

Properties

- maintenance free
- very durable
- can be worked as wood
- splinter-free
- frost proof
- insensitive to fungi and insects
- does not exude toxic substances into the environment
- wear-resistant
- non-rotting
- environmentally friendly
- 100% recyclable
- insulating
- soundproofing
- shock-proof and flexible

Tolerance
In products made of recycled plastic, tolerances up to 3% on the measurements are possible.

Workability
The material is easy to work (comparable to wood):
screwing, nailing, sawing, drilling, planing, milling, stapling etc. are possible.
Directions:
- drill at low speed
- rough-drill before screwing
- preferably saw with a circular saw (WIDIA)



e.g.: 3.2 x 15 cm
tongue and groove board
scale 1/1 (saw cut)

One of the major differences is the solidity of the boards' and bollards' core.
This solid core makes it possible to demand higher technical requirements of the material.
Govaplast® bollards and boards are characterised by a perfect, homogenous quality of plastic mixture and a beautiful, solid core.

Performances

Density:		0.954 kg/dm³
Linear extension coefficient:		0.072 mm/m/°C
Moisture absorption:		under 0.46%
Vicat temperature (ISO306/A50):		107.2°C
Pull-out value (galvanised; 70x5mm; speed 50mm/m):		3095.61 N
E-module:		500 -570 MPA
Breaking strength:		15.66 -17.73 MPA
Stretch at breaking:		3,86 - 14,66 %
Maximal pulling strength:		15.75 - 17.81 MPA
Stretch at maximal pulling strength:		3,86 - 4,59 %
Shock resistance (EN ISO 179):		
	- average impact:	12.79 - 17.57 kg/m²
	- average impact:	0.51- 0.70 J
Bending test (ISO 178)		
	- e-module:	550 MPA
	- maximal press force:	22.17 MPA
	- bend at max. press force:	7,18%
Pressure test:		
	- from 1700 N/cm²:	light pressure
	- from 3100 N/cm²:	impression
	- from 6300 N/cm²:	no more resistance
Chemical stability:	- methanol	no damage
(contact time 36h; contact temperature 21°C)	- acetone	no damage
	- methyl ethyl ketone	no damage
	- trichlorethylene	no damage
	- cellulose thinner	no damage
	- methylene chloride	no damage
	- synthetic thinner	no damage
	- white spirit	no damage
	- grease	no damage
	- domestic bleach	light damage brown
	- HCL (37%)	light damage green
	- HNO3 (70%)	light damage green

Apart from extensive internal research, the material was tested by :
- University of Liège, CRIF department
- the VKC (Vlaams Kunststof Centrum).