

WOOD COMPOSITE GARDEN RANGE





WHAT IS DUOFUSE® WOOD COMPOSITE

Duofuse® wood composite is a mix of wood flour and PVC. Mixing wood flour and PVC gives rise to an extremely strong combination, which reinforces the advantages of both materials while removing their disadvantages.

This durable material is ecological and maintenance friendly. It is available in a traditional wood colour and in modern shades of grey. The extensive garden range includes decking in various sizes, colours and designs to give your patio a nice view and good comfort.

To separate your garden or patio, you can choose from different screens that are all modular and can be combined with each other. The tongue and groove system gives your garden a sleek, smooth look. The slat wall system, however, is a more modern fence with pleasing lines. The ranch fencing allows you to be enclosed and yet keep an open feeling.

All items can be combined perfectly, as they are produced from the same raw materials and colours.

ADVANTAGES OF WOOD COMPOSITE

- **WILL NOT ROT, SWELL, SPLINTER OR SPLIT**

- **SLIP RESISTANT, BRUSHED SURFACE**

For maximum comfort and a natural look

- **EASY TO CLEAN AND TO INSTALL**

It does not require treatment with oil, solvents or cleaning products.

- **MINIMAL DISCOLOURATION, MAINTAINS ORIGINAL LOOK**

After several days, the product will begin to fade slightly. This is a temporary and a natural process due to the leaking of the lignin. Afterwards the original colour will return.

- **ECOLOGICAL AND RECYCLABLE**

Wood composite is a durable and ecological alternative to hardwood. It is made of a mix of wood flour and PVC. Therefore it contributes to the protection and conservation of the tropical rain forests. The estimated life span exceeds that of conventional wood and afterwards is fully recyclable.



WE LOVE NATURE



PEFC Certified

This product is from sustainably managed forests and controlled sources

www.pefc.co.uk

• PEFC CERTIFIED

In Belgium, Plastivan is recognised as a PEFC-certified company. Our concern for the environment and the development of sustainable products has ensured that from today we are in a position to present this certificate. Duofuse wood composite consists of 50% wood flour. This wood comes from sustainably managed forests.

The wood flour is mixed with PVC in our own granulation plant to form WPC granules. These are then used in the production of wood composite decking boards and fencing. This production is fully integrated from raw material to finished product. Thanks to this investment, Plastivan now has full control over the entire production process.





DECKING

ADVANTAGES

- **DOES NOT ROT, SWELL, SPLINTER OR SPLIT**
If installed correctly, you will enjoy your decking for years and walk and play barefoot on the decking in safety.

- **SLIP RESISTANT, BRUSHED SURFACE**
Thanks to the brushed surface, the decking is far less slippery than a wooden decking.

- **INVISIBLE FIXING**
No screws or nails that distort the view or hurt you. Thanks to the specially designed clips, boards are fastened to the wood composite beams.

- **DIFFERENT HEIGHTS POSSIBLE**
The Duofuse® beam can be installed in 2 ways, so that decking can be placed at 35mm or 48.5mm from the ground.

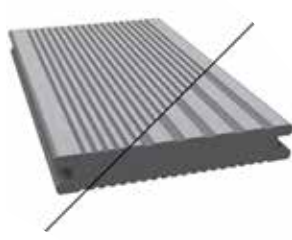
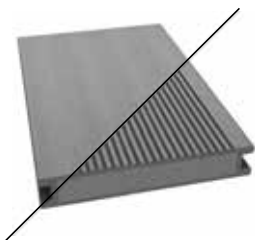
VERSIONS

- **4 DIFFERENT FINISHES:**
refined finish, wood grain finish, brushed and robust finish
Or different finishing on either side.



DFD162
162x28x4000mm

DFDE162
162x28x4000mm



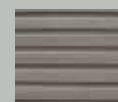
DFDS162
162x28x4000mm

DFD140
140x23x4000mm

COLOURS



TROPICAL BROWN



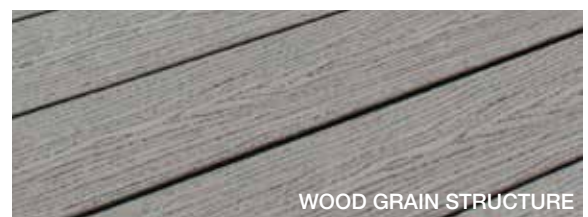
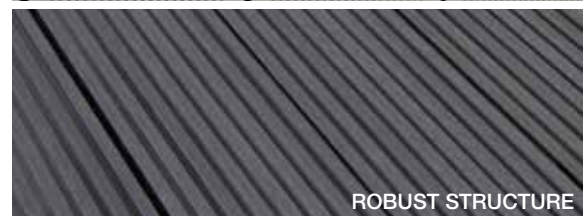
WENGE BROWN



STONE GREY



GRAPHITE BLACK



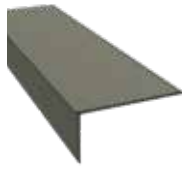
PARTS



DFB048
Beam
PVC
48.5 x 35mm



DFS076
Skirt
wood flour & PVC
76 x 10mm



DFLA076
Alu L profile
anodised aluminium
76 x 37mm



DFC001
Standard clip



DFC002
Butting clip

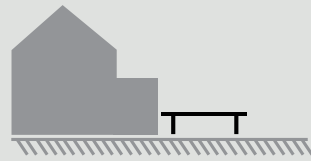


DFC004
Starter and finishing
clip

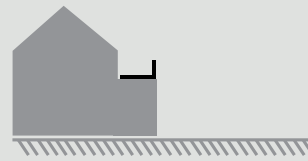
APPLICATIONS



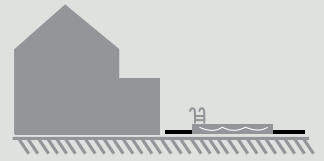
SOLID GROUND



FLOATING STRUCTURE



ROOF TERRACE



**SWIMMING POOL/
HUMID ENVIRONMENT**





ADJUSTABLE PEDESTALS POLYPROPYLENE

For higher placements or placement on roof terraces you can use polypropylene pedestals that allow heights of more than 200mm.

When using these pedestals, however, you cannot use wood composite beams, since it is not a structural element.



DFP30/50-75
Pedestal in polypropylene
Height 30-50mm
Width 75mm



DFP50/90-75
Pedestal in polypropylene
Height 50-90mm
Width 75mm



DFP90/130-75
Pedestal in polypropylene
Height 90-130mm
Width 75mm



DFP110/150-75
Pedestal in polypropylene
Height 110-150mm
Width 75mm



DFP150/190-75
Pedestal in polypropylene
Height 150-190mm
Width 75mm



DFP-35
Extension pedestal
35mm

ALUMINIUM SUBSTRUCTURE

An easy, durable and strong system

The aluminium substructure guarantees an easy and fast assembly of the Duofuse® composite decking boards. Furthermore, the Duofuse® aluminium substructure is also suitable for other types of decking boards with grooves of minimum 35mm height and 8mm depth.

GUARANTEED TIME SAVING ON THE ASSEMBLY

With the Duofuse® aluminium substructure you will save at least 50% on installation time compared to traditional screwed systems.

IDEAL FOR FLOATING STRUCTURES

This system is particularly suitable for applications by which the substructure must be installed floating.

The Duofuse® aluminium substructure is the ideal solution for people who want an efficient, durable and price conscious installation.

ADVANTAGES

- Faster assembly
- Straight beams
- Light weight
- Dimensionally stable
- Weatherproof
- Easy installation
- 100% recyclable
- Pre-drilling not necessary
- Invisible fixing
- Local disassembly possible

PARTS

The system consists of a recycled aluminium beam (40 x 43mm b x h), and a synthetic clip with adaptable height with starter and finishing clip plus additional accessories.



DFBA040
Aluminium beam
Height 40mm
Width 40mm
Length 4m00



DFC005
Synthetic clip
(stainless steel
screw incl.)



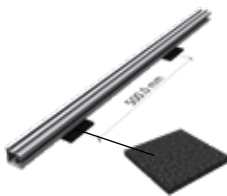
DFC006
Starter and finishing
clip
Stainless steel



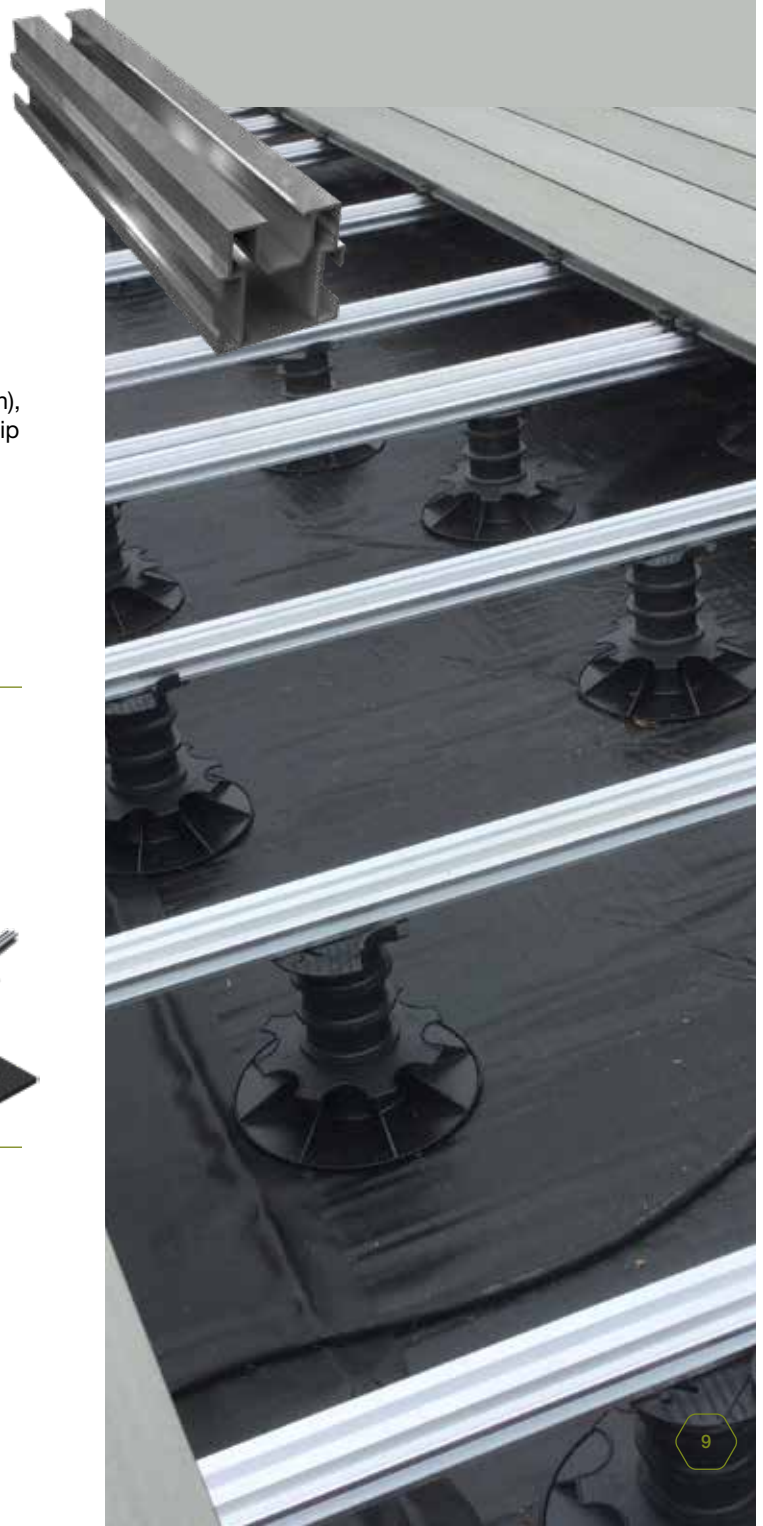
DFJP
Joiner piece
(bolt and nut incl.)



DFMC
Multifunctional
corner
(bolt and nut incl.)



DFR90X90
Rubber protection
tile
Height 8mm
Width 90mm
Length 90mm





TONGUE & GROOVE BOARDS SYSTEM

ADVANTAGES

- **STRONGER AND MORE DURABLE THAN WOODEN FENCES**

- **VERSATILE AND MODULAR**

Heights between 15cm and 195cm are possible. By using the corresponding U-profiles, the boards can be attached to the post in 4 directions. Standard width of the boards is 180/200cm but boards can be cut to length.

- **APPLICATIONS**

Can be used for garden fences, raised beds, building material for sheds, carports, cabins, storeroom, gates,...

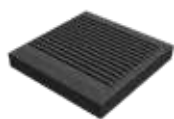
PARTS



DF1B150
Tongue and Groove Board
15 x 2.7 x 180/200cm
(reinforced with steel)



DF1P90
Post
9 x 9 x 270/300cm
(reinforced with an aluminium core)



DF1C11
Cover Cap Classic
11 x 11 x 1.7cm
(to avoid water infiltration in the post)



DF1C09
Cover Cap Design
9 x 9 x 1.7cm
(to avoid water infiltration in the post)



DF1U27
Small U-profile
2.7 x 3.5 x 182/202cm
(fitting system for the boards and to use as finishing profile above the upper board)



DF1U42
Large U-profile
4.2 x 3.5 x 182cm
(optional - only needed if a concrete gravel board is used at the base)



DFPH60
Internal post holder tube 6 x 6 x 60cm on plate 15 x 15cm (optional - only needed when fixing the posts on a terrace, concrete floor or wall)



DF1G2-1.00
Garden gate
100 x 2.7 x 180cm
100 x 2.7 x 200cm
(including door hardware)

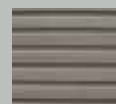


DF1PG2-90
Gate post
9 x 9 x 300cm
(optional - in combination with the Duofuse gate)

COLOURS



TROPICAL BROWN



WENGE BROWN



STONE GREY



GRAPHITE BLACK



OPTIONAL: DECOPANEL



DF1AS
Kit design square in lacquered aluminium
30 x 0.6 x 200cm
TB (lak ral 8017)
WB (lak ral 8019)
GB (lak ral 7021)
SG (lak ral 7030)

DF1AB
Kit design bubbles in lacquered aluminium
30 x 0.6 x 200cm
TB (lak ral 8017)
WB (lak ral 8019)
GB (lak ral 7021)
SG (lak ral 7030)

DF1PT
Kit design transparent PMMA
30 x 0.6 x 200cm
TB
WB
GB
SG

DF1PO
Kit design matt PMMA
30 x 0.6 x 200cm
TB
WB
GB
SG

1 kit includes	additional tongue profile - 1x 2m (upper finish) additional groove profile - 1x 2m (bottom finish) additional groove profile - 1x 0.60m (side finish)	rubber profile - 2x 2m rubber profile - 1x 0.60m 1 deco panel	Installation guide
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SLAT WALL SYSTEM

ADVANTAGES

- **A UNIQUE FENCING SYSTEM THAT COMBINES DESIGN WITH DURABILITY**
- **VERSATILE AND MODULAR**
 - Heights between 20cm and 200cm are possible.
 - By using the corresponding U-profiles, the boards can be attached to the post in 4 directions.
 - Standard width of the boards is 180/200cm but boards can be cut to length.
- **APPLICATIONS**
Can be used for garden fences, raised beds, building material for sheds, carports, cabins, storeroom, gates,...

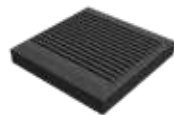
PARTS



DF4B200
Board
20 x 4 x 200cm
(reinforced with steel)



DF1P90
Post
9 x 9 x 270/300cm
(reinforced with an aluminium core)



DF1C11
Cover cap Classic
11 x 11 x 1.7cm
(to avoid water infiltration in the post)



DF1C09
Cover cap Design
9 x 9 x 1.7cm
(to avoid water infiltration in the post)



DF4U40
U-profile for slat wall system
4 x 5.5 x 202cm
(fitting system for the boards and to use as finishing profile above the upper board)



DF1U42
Large U-profile
4.2 x 3.5 x 182cm
(optional - only needed if a concrete gravel board is used at the base)



DFPH60
Internal post holder tube
6 x 6 x 60cm on plate 15 x 15cm
(optional - only needed when fixing the posts on a terrace, concrete floor or wall)



DF1G2-1.00
Garden gate
100 x 2.7 x 180cm
100 x 2.7 x 200cm
(including door hardware)

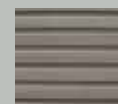


DF1PG2-90
Gate post
9 x 9 x 300cm
(optional - in combination with the Duofuse gate)

COLOURS



TROPICAL BROWN



WENGE BROWN



STONE GREY



GRAPHITE BLACK





SLATT WALL GARDEN FENCES

A unique fencing system that combines design with durability. Clean-cut garden fencing in wood composite slats add value to every house and every garden. Whatever the setting, they always look good and exclusive and cannot be distinguished from solid wood. The distinct perspective and lined structure of the slats also make your garden seem bigger than it actually is.

One of the main advantages of a slat wood-plastic composite garden fence is the fact that you need never oil or stain it ever again!

Even after years of exposure and usage, your slat wall garden fences will look as good as new.

**DESIGN
QUALITY
PRIVACY**



RANCH FENCING

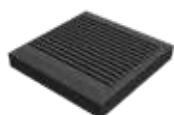
PARTS



DF3B120
Board
12 x 2.7 x 180cm
(reinforced with steel)



DF1P90
Post
9 x 9 x 270/300cm
(reinforced with an aluminium core)



DF1C11
Cover cap Classic
11 x 11 x 1.7cm
(to avoid water infiltration in the post)



DF1C09
Cover cap Design
9 x 9 x 1.7cm
(to avoid water infiltration in the post)



DF1U27
Small U-profile
2.7 x 3.5 x 182/202cm
(fitting system for the boards)



DF3P27
Spacer
2.7 x 3.5 x 180cm
(to create distance between the boards)



DFPH60
Internal post holder
tube 6 x 6 x 60cm
on plate 15 x 15cm
(optional - only needed when fixing the post on a terrace, concrete floor or wall)

ADVANTAGES

- **STRONGER AND MORE DURABLE THAN WOODEN RANCH FENCING, MORE BEAUTIFUL THAN CONCRETE FENCING**
- **VERSATILE AND MODULAR**
- Heights between 12cm and 200cm are possible
The number of boards and the space between the boards is free to choose.
- **APPLICATIONS**
Can be used for fencing for ranches, stables, gardens,...

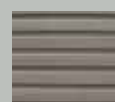
Ranch fencing can also be used in combination with tongue and groove system:

- Lower part can be a closed fencing and upper part open fencing.
- A number of closed fencing and then a number of ranch fencing.
- By using the corresponding U-profiles the boards can be attached to the post in 4 directions.
- Standard width 180cm, can be shortened.

COLOURS



TROPICAL BROWN



WENGE BROWN



STONE GREY



GRAPHITE BLACK





RANCH FENCING

The durable and modular alternative for wooden or concrete fences. Duofuse offers you the perfect solution to fence off your garden in style or to keep horses, sheep and other animals in their pasture in true country style. Duofuse wood composite enclosures are in any event stronger and more durable than wooden fences, particularly because they do not rot, even in the dampest conditions.

They are also much more attractive and more timeless than concrete fences. The plank posts can be sunk into the ground or mounted on top of a low wall. Duofuse pasture fencing requires no maintenance, so you can spend more time on your animals.

**MADE
IN
BELGIUM**

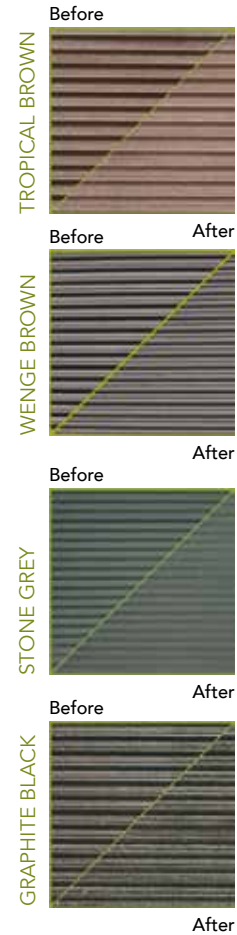
COLOUR CHANGING

After several days, the product will begin to fade slightly. This is a temporary and a natural process due to the leaking of the lignin. Afterwards the original colour will return.

The reason is that the wood composite material contains 50% PVC and 50% wood flour. Wood flour contains lignin in the cell wall and together with cellulose it determines the strength of wood. By sanding the surface during the manufacturing process, the wood fibres release the lignin and following exposure to UV light a slight discolouration occurs. In this early stage, Stone Grey and Graphite Black get a yellow/green tint. The sun and rain loosen the lignin on the surface and a brown/yellow substance emerges. This substance is completely harmless and is responsible for the colour change. This may cause water circles or drip edges on the wood composite profiles. The more irrigated the boards, the faster the lignin disappears from the wall and after a few weeks/months, the original colour of the panels will be regained. If you wish to speed up this process you can rinse the product regularly with water.

Boards that have started to fade can be perfectly positioned with boards that have not been subject to this discolouration process. Over time, all the boards will have the same even colour. Below is the original colour with adjacent the final colour.

There can be slight colour differences between different production series as 50% of the material is made of wood.



AVAILABLE COLOURS

TROPICAL BROWN



WENGE BROWN



STONE GREY



GRAPHITE BLACK



Decking, Tongue and groove boards system, Slat wall system, Ranch fencing

The colours and brushing may differ from one production to another and are not contractually binding. It is not recommended to mix boards from different production batches. The date of production can be found on every board. Make sure that all boards are placed in the same direction (inside each board, a mark is provided for this).

MAINTENANCE

Duofuse® wood composite is virtually maintenance free meaning that preservative products are completely superfluous. For normal maintenance, you can use a brush or high pressure washer (max. 80 bar). Feel free to use a mild cleaning agent, but it is not advisable to use a dirt killer. .

Any grease and oil stains can be removed with a household degreaser. The best way to deal with persistent dirt such as organic stains, mould and slime build-up or moss is to use a diluted bleach solution (25% bleach at 10° with 75% water). Solvents must NOT be used. Always make sure that the joints are open for good drainage.

In case of staining:

- 1 Any stains are best removed straight away so that they cannot penetrate the material or dry up on it. Rinsing with water and a mild soap solution is recommended in this case.
- 2 If a stain is not removed immediately, it may dry up and penetrate the plank. If this is the case, thorough cleaning with a pressure washer and/or brushing in the direction of the grooves is best. The discolouration will stabilize after 6 to 10 weeks.





Plastivan nv offers a 10 year warranty for all mechanical properties of the Duofuse® decking, tongue and groove boards system, slat wall system and ranch fencing and against all ant and insect attacks. The warranty conditions are based on current knowledge and correct use of the product.

Plastivan disclaims responsibility for damage caused by, or failure of, the product as a result of faulty installation caused by failure to follow the installation instructions that were available on the Plastivan website at the time of installation.

The warranty means damaged products will be replaced or refunded, taking into account a depreciation in relation to the already elapsed time and warranty period. Costs for replacement and removal, labour or other costs (e.g. transportation) are not covered by this warranty.

10
years
warranty

TECHNICAL INFO

CHARACTERISTICS AND TESTS ON DUOFUSE® WOOD COMPOSITE (GENERAL)

Description test	Conducted test	Value	Unit
Density at 20°C	EN ISO 1183-1 Method A	1.40	g/cm ³
Vicat softening temperature	NBN EN ISO 306 Method B	86.2	°C
Traction characteristics			
Traction at 23°C Yield stress	NBN ISO 527-2	35.8	N/mm ²
Modulus of elasticity at 23°C	NBN ISO 527-2	6990	N/mm ²
Bending characteristics			
Flexural strength σ_b	ISO 178	67.5	Mpa
Modulus of elasticity (Flexural test) E_b	ISO 178	6460	Mpa
Brinell Hardness H_b	EN 1534	111	-
Linear modulus of elongation	ASTM D696	0.018	mm/m. °C
Stress grading	EN 350	1	-
Verification of dimensional stability after immersion			
Max swelling in water after 28 days	EN 317	2.66	%
Max elongation in water after 28 days	EN 317	0.31	%
Rapid aging, discolouration	EN 513	≤ 2	grey scale
Verification of dimensional changes under changes of humidity			
from 65 % to 85 %	EN 1604	0.093	%
from 65 % to 30 %	EN 1604	0.135	%

CHARACTERISTICS AND TESTS ON DUOFUSE® (DECKING)

Description test	Conducted test	Value	Unit
Changes in length caused by internal tension	NBN EN 479	0,1	%
Changes in length caused by humidity	NBN EN 1087-1	< 0.75	%
Coefficient of kinetic friction			
dry samples	BN 86/6781-02	≥ 0.24	-
damped samples	BN 86/6781-02	≥ 0.12	-
oiled samples	BN 86/6781-02	≥ 0.08	-
Anti-slip characteristics	DIN 51130 PB-LF 40	R10	class
Abrasion resistance	EN ISO 5470-1	≤ 1000	mg
Fire reaction	EN 13501-1	Dfl-S2 *	-
Water absorption			
after 24h at 23°C	EN 317	< 2	%
after 28 days at 23°C	EN 317	< 3.5	%
Resistance to impact			
DFD162 / DFDE162 at a temperature of 23°C	EN 477	5	J
DFD140 / DFDS162 at a temperature of 23°C	EN 477	15	J
DFD162 / DFDE162 at a temperature of 23°C	EN 477	4	J
Bending properties			
DFD162 - E modulus	EN 310	± 4100	N/mm ²
DFDE162 - E modulus	EN 310	± 4100	N/mm ²
DFDS162 - E modulus	EN 310	± 3500	N/mm ²
DFD140 - E modulus	EN 310	± 7200	N/mm ²
Deflection under load of 1 kN span 400 mm	EN 1533	1.41	mm
Deflection under load of 1 kN span 500 mm	EN 1533	2.31	mm
Verification of resistance to permissible concentrated load	EN 12871	≤ 1000	N
Load in case of a crack	EN 310	≤ 315	kg

CHARACTERISTICS AND TESTS ON DUOFUSE® (TONGUE AND GROOVE BOARDS SYSTEM)

Description test	Conducted test	Value	Unit
Wind load (wind resistance)	NBN EN 12210	class 4	-



produced by PLASTIVAN
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 made in Belgium