

**CONSTRUCTION**  
**FLOORING UNDERLAY**  
**PARQUET UNDERLAY**

## FLOORING UNDERLAY

### TROCELLEN N and VN

Cross-linked polyethylene foam able to maintain mechanical and acoustic characteristics stable in time. Compression resistance of 190 g/cm<sup>2</sup> to compress 0.3 mm (almost 2 ton/m<sup>2</sup>) make this material ideal for building “floating flooring”, even when the flooring - tile system laid on top is particularly heavy. The impact sound insulation value is 25 dB (see graph).

### TROSIL AND TROSIL TECH

Acoustic insulation of new generation for crash sound, developed for the living comfort. Products are based on soft and cross-linked polyolefin polymers.

(see our specific brochure)

### FLOATING FLOORING

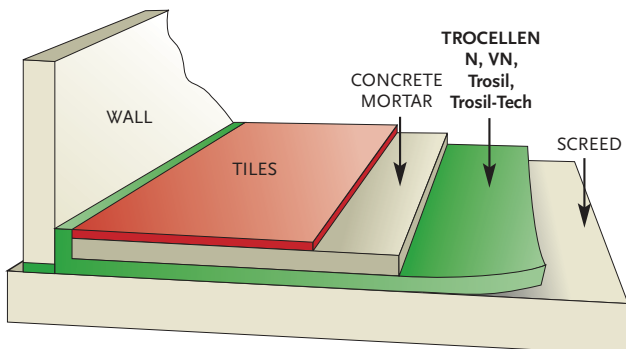
Instruction for laying **TROCELLEN N, VN, TROSIL and TROSIL-TECH**, using the “FLOATING FLOORING” method **TROCELLEN** should be laid on the concrete floor base after all electrical and plumbing work has been completed and avoiding creating rigid links between the floating structure and the surrounding walls. It is important to leave a 5 cm. Overlap at the bottom of the walls to prevent sound “bridges” from being created.

To guard against the penetration of sand or cement through the layers of flooring, it is advisable to firmly weld the outer edges of the rolls with a hot air welder.

The layer of underlay is then covered by the floor base with arc welded mesh onto which the floor is laid.

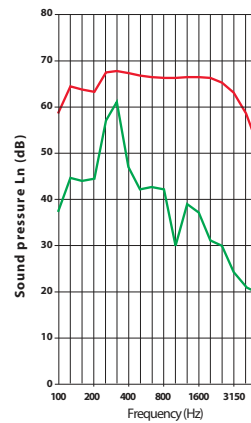
The **TROCELLEN** should overlap up the walls to above the level of the finished floor. This is both to avoid sound “bridges” and to reduce the risk of the floor cracking due to distortion with changes in temperature. The material can be trimmed flush with the edge once the floor has been fully laid.

Laying diagram

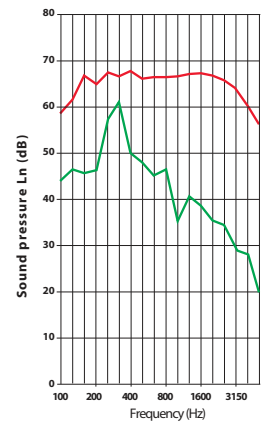


### GRAPHS SHOWING REDUCTION OF IMPACT SOUND

N Type 5 mm



VN Type 5 mm



Measurement with mortar 180 kg/m<sup>2</sup>

- Test curve of the screed without covering
- Test curve of the screed covering + base block



## ACCESSORIES

### TROCELLEN BAND

Self-adhesive, closed cell, cross-linked polyethylene foam strip used to edge the join between the floor block and the walls.

### SELF-ADHESIVE STRIPS

Thickness mm	Width mm	Length m
3	150	50
5	150	50



# PARQUET UNDERLAY

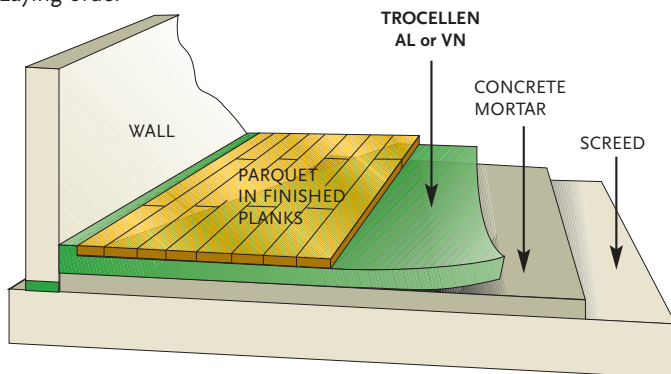
## TROCELLEN N / VN

Laying advice

**TROCELLEN** should be laid using the “floating floor” technique. The rolls should be laid perfectly straight on the solid wood, making sure that the selvages overlap. If the underlay is laid without selvages, the sheets should be joined together using 1 mm **TROCELLEN** self-adhesive strips. To avoid the creation of a sound bridge, it is advisable to leave a “skirt” of 2-3 cm up the edge of the walls above the level that the flooring will reach.

When the parquet has been laid, the overlapping underlay can be trimmed before the skirting boards are mounted.

Laying order



## ACCESSORIES

### ADHESIVE TAPES

Adhesive tapes based on Trosil, laminated

### STRIPS UNDER THE WALL

Trocellen strips type N density 50-60 kg/m<sup>3</sup>



JOIN BANDS		
Thickness mm	Height mm	Length m
2-3	75	50
STRIPS UNDER THE WALL		
4	100 - 150 - 300	50

## TECHNICAL DATA SHEET

Type of material	Norm	Unit	Trocellen N flooring underlay	Trocellen VN flooring underlay/parquet underlay	Trocellen AL parquet underlay
Description			Chemically cross-linked PE foam	Physically cross-linked PE foam	Chemically cross-linked PE foam laminated with embossed, scratch resistant metallic film (30 micron) with selvage
Density	EN ISO 845	kg/m <sup>3</sup>	30	30	30
Thickness	EN ISO 1923	mm	3 - 5 - 10	2 - 3	2,5
Colour	Spec. BASE		anthracite	anthracite	anthracite
Roll size		m	3 mm 1,5 x 150 5 mm 1,5 x 200 10 mm 1,5 x 80	1,5 x 100	1,5 x 200
Reaction to fire	UNI 8457/UNI 9174		NA	NA	NA
Compression stress strength at 10%	EN ISO 3386/1	g/cm <sup>3</sup>	190	130	190
Water vapour permeability	EN ISO 12572	ng/Pa s m	0,12	0,12	-
Water vapour diffusion coefficient	EN 12086 EN ISO 12572	μ	> 2.000	> 2.000	> 12.000
Water absorption after 28 days	ISO 2896	Vol. %	< 3	< 2	< 3
Dimensional stability (< 5%)	ISO 2796	°C	100	90	100
Thermal conductivity at 10 °C (λ)	EN 12667	W/mK kcal/mh °C	0,0367 0,0317	0,0367 0,0317	0,0367 0,0317
Impact sound insulation ΔLw (mortar 180 kg/m <sup>2</sup> )	EN ISO 140/6-8 EN ISO 717/2	dB	3 mm = 25 5 mm = 26 10 mm = 26,5	5 mm = 23,5	NF S 31.053 = 20
Dynamic stiffness s't = s'	EN 29052-1	MN/m <sup>3</sup>	3 mm = 140 5 mm = 92 10 mm = 79	NA	NA

## SUMMARY

### TROCELLEN N (flooring underlay)

#### TROCELLEN 30 N

Chemically cross-linked polyethylene foam in rolls, without CFC type. Average thickness 3, 5 or 10 mm, dark grey in colour, closed cell. Flexible, thermally resistant up to at least 100 °C, with shrinkage of less than 5%. Thermal conductivity at 10 °C  $\lambda = 0,0317$  kcal/mh°C. Resistance to compression - i.e. the deformation of the thickness by more than 10% - 190 g/cm<sup>2</sup>

### TROCELLEN VN (flooring underlay - parquet underlay)

#### TROCELLEN 30 VN

Physically cross-linked polyethylene foam in rolls, without CFC . Average thickness 2 or 3 mm, dark grey in colour, closed cell. Flexible, thermally resistant up to at least 90 °C, with shrinkage of less than 5%.

### TROCELLEN AL (parquet underlay)

#### TROCELLEN AL

Chemically cross-linked polyethylene foam in rolls, without CFC . Average thickness 2,5 mm, dark grey in colour, closed cell. Foam bonded with embossed, scratch resistant metallic film (30 µm), that increase further on the mechanical resistance, flexible, thermal resistant up to at least 80 °C. Thermal conductivity at 10 °C  $\lambda = 0,0317$  kcal/mh°C.

## INTERNATIONAL LOCATIONS

#### Headquarters

##### TROCELLEN GmbH

Mülheimer Straße 26  
53840 Troisdorf  
Germany  
Ph. +49 2241 85 04  
Fax +49 2241 85 37 53

##### TROCELLEN Italia S.p.A.

Via della Chimica, 21-23  
20867 Caponago (MB)  
Italy  
Ph. +39 02 95 96  
Fax +39 035 50 21 74

##### TROCELLEN Italia S.p.A.

Sales office  
Via Dante, 3  
20867 Caponago (MB)  
Italy  
Ph. +39 02 959 621  
Fax +39 02 959 62 235

##### TROCELLEN Ibérica S.A.

C/Avila, s/n  
28804 Alcalá de Henares  
Spain  
Ph. +34 91 885 55 00  
Fax +34 91 885 55 01

##### TROCELLEN S.E.A. Sdn Bhd

Lot 2213, Kg. Batu 9 Kebun Baru,  
Jalan Kasawari,  
42500 Telok Panglima Garang  
Selangor Darul Ehsan,  
Malaysia  
Ph. +60 3 3122 1213  
Fax +60 3 3122 1211

##### TROCELLEN GmbH, UK Office

Central Chambers, 77 Westborough  
Scarborough, North Yorkshire  
YO11 1 TP  
United Kingdom  
Ph. +44 1723 376 111  
Fax +44 1723 376 444

##### TROCELLEN Rus

141402 Moskovskaya - oblast  
Himki - 2, post box 186  
Russian Federation  
Ph. +7 495 739 44 38  
Fax +7 495 739 44 21

##### Polifoam Plastic Processing Co.

Ltd. Hungary  
Táblás u. 32  
1097 Budapest  
Hungary  
Ph. +36 1 347 98 00  
Fax +36 1 280 67 08

[www.trocellen.com](http://www.trocellen.com)

