



# TROCELLEN ROLLS

Insulation of technical installations

Thermal insulation



# Rolls

**TROCELLEN** is a closed cell, chemically cross-linked polyolefin foam (a group which includes PE, PP, copolymers, EVA, etc). Available versions:

### TROCELLEN N

Dark grey, does not contain flame retardants. Over 7 mm thickness conforms to the USA -FMVSS 302 and German DIN 75200 standard of flame containment at less than 100mm/min

### TROCELLEN NP

N type, laminated with scratch resistant embossed metallic polyethylene film

### TROCELLEN AL

N type, laminated with scratch resistant embossed black polyethylene film

### TROCELLEN AL REF

N type, laminated with a metallic polyester film

### TROCELLEN CL1

Light grey in colour, produced with flame retardant additives to make it conform to the standards for the category, for example TROCELLEN CL 1 - Italy, M1 France, etc.

### TROCELLEN AL/CL1

CL1 type, with embossed, scratch resistant metallic PE film

### TROCELLEN AL/CL1 REF

CL1 type, with embossed, scratch resistant metallic PET film

### TROCELLEN CL1 ALU

CL1 type, with 50 µm smooth or embossed aluminium

### TROCELLEN CLASS OEM (not CE marked)

Euroclass B-s2,d0 thicknesses 3-10 mm; Euroclass C-s2,d0 thickness 12 mm, adhesive, according to EN 13501-1, light green



TROCELLEN ROLLS (height 1,50 m)						
THICKNESS m	TYPES N, NP, AL, AL REF		TYPES CL1, AL/CL1, CL1 REF, CL1 ALU		TYPE CLASS OEM (NOT CE MARKED)	
	MULTIPLE OF m <sup>2</sup>	AVAILABLE SIZE m <sup>2</sup>	MULTIPLE OF m <sup>2</sup>	AVAILABLE SIZE m <sup>2</sup>	MULTIPLE OF m <sup>2</sup>	AVAILABLE SIZE m <sup>2</sup>
03	450	75	600	300/75	600	300/75
05	300	75	-	-	-	-
06	225	75	300	75	300	75
08	150	75	225	75	225	75
10	120	60	180	60	180	60
12	135	45	135	45	135	45
15	90	45	90	45	-	-
20	120	60/30	180	30	-	-
24	135	22,5	135	22,5	-	-
30	120	30	180	30/2,96	-	-

\* For different thicknesses, please contact our commercial office.

## APPLICATIONS

The following are used to fit the rolls:

### “AD” TYPE ROLLS (ADHESIVE)

- The rolls are available with self-adhesive for thicknesses of 3-6-8-10 and 12 mm.
- For thicknesses of 16-20-24-30 mm consult the technical office in the production plant.

For hot air heating systems where temperatures may reach 60 – 80 °C we advise to use MATIBLOCK glue which should be spread on the sheet (object to be installed) and the duct.

## USES

The most common uses are:

- Insulation of airduct and hot and cold water storage tanks
- Insulation of large diameter pipes
- Adhesive seals

TECHNICAL DATA							
TECHNICAL CHARACTERISTICS	NORM	UNIT	TROCELLEN N	TROCELLEN CL1	TROCELLEN AL/CL1	TROCELLEN CL1/ALU	TROCELLEN CLASS OEM (NOT CE MARKED)
Reaction to fire	UNI 8457 UNI 9174 EN 13501-1	-	-	Classe 1	Classe 1	Classe 1	Euroclass B-s2,d0 - BL-s1,d0 for thickness range 3-10mm C-s2,d0 - BL-s1,d0 for thickness 12 mm
Thermal conductivity coefficient at 0 °C ( $\lambda$ -value)	EN 12667	W/mK kcal/mh°C	0,0345 0,0297	0,0345 0,0297	0,0345 0,0297	0,0345 0,0297	0,0360 0,0309
Thermal conductivity coefficient at 40 °C ( $\lambda$ -value)	EN 12667	W/mK kcal/mh°C	0,0400 0,0344	0,0400 0,0344	0,0400 0,0344	0,0400 0,0344	0,0450 0,0387
Water vapour diffusion factor ( $\mu$ -value)	EN 12086 EN ISO 12572	-	$\geq 2000$	$\geq 2000$	$\geq 12000$	$\geq 65000$	$\geq 1000$ (1270)
Density	EN ISO 845	kg/m <sup>3</sup>	30	30	30	30	28
Thickness	EN ISO 1923	mm	from 3 to 30 (See base spec.)	from 3 to 30 (See base spec.)	from 3 to 30 (See base spec.)	from 3 to 30 (See base spec.)	from 3 to 12 (See base spec.)
Colour	BASE spec.	-	grey anthracite	light grey	light grey	light grey	light green / grey anthracite
Compression stress at 10%	EN ISO 3386/1	kPa	24	15	18,6	18,6	12
Water absorption after 28 days	ISO 2896	Vol.%	<3	<3	<3	<3	<3
Dimensional stability (< 5%)	ISO 2796	°C	100	100	100	100	90
Maximum operative temperature range		°C	-80÷ +100	-80÷ +100	-80÷ +100	-80÷ +100	-80÷ +90
Maximum operative temperature range with mechanical stress		°C	-40÷ +100	-40÷ +100	-40÷ +100	-40÷ +100	-40÷ +90



## SEALS - TAPES - STRIPS - GLUE

### TROCELLEN SEALS, THICKNESS 3-6 mm

These seals should be used to join metal elements (duct flanges, the edges of refrigeration cell doors and ventilation vents) to guarantee hermetic sealing and vibration damping.

Acrylic self-adhesive.

Range:

- thickness 3-6 mm, types N and CL1

### EPDM SEALS

The material used for this type of sealant is EPDM/other polyolefin resin foam, offering superior compressive strength and excellent spring.

Range:

- thickness 3-4-5 mm

### AL/CL1, AL/CL1 HR TAPES AND ALUMINIUM TAPES (adhesive)

To guarantee a good aesthetic finishing, the product range also contains a series of AL/CL1 and AL/CL1 HR tapes (50 mm wide, <1 mm thick, 25 mm long), protected by siliconized paper or siliconized PE film.

Aluminium tapes:

- thickness 50 µm, types embossed, smooth, self-adhesive (smooth or embossed), Duplex (with polyester film, improved tensile strength and adhesiveness).

### TROCELLEN CLASS STRIPS

Suitable for the technical and aesthetic finishing of the insulation, they can be used for sections of piping where it is difficult to apply insulating sleeves and for joints between insulation sleeves and sheets which must be first glued with MATIBLOCK glue.

Range:

- thickness 3 mm, types Trocenen CLASS adhesive plain and TROCELLEN CLASS ALU adhesive

Other types available: AL, CL1, AL/CL1, AL/CL1 HR, CL1 ALU/L, rubber.

### MATIBLOCK GLUE

Special solvent-based glue used to ensure resistance up to 120 °C as an alternative to the self-adhesive range of products.

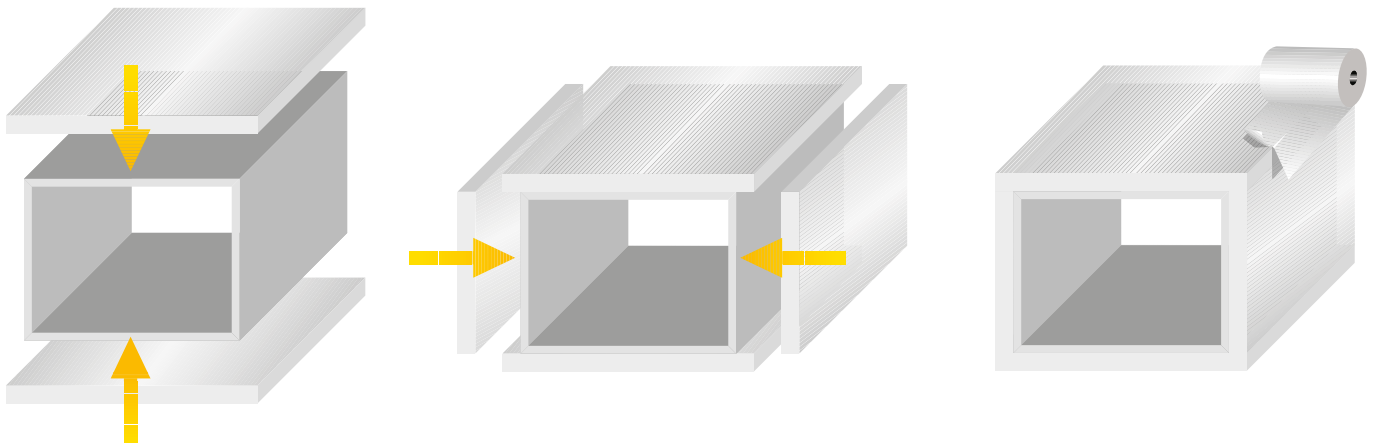


## STORING THE ADHESIVE ROLLS AND MATIBLOCK GLUE

To guarantee correct storage of the adhesive rolls, you must follow the recommendations below:

- The ideal storage temperature should always be kept within 10 °C and - 25 °C. Adhesives are sensitive to jumps in temperature and may lose their adhesive properties (too hot) or become brittle (too cold), leading to the risk of peeling-off after installation
- For no reason whatsoever should the adhesive rolls be stored outdoors: humidity, water and sun will seriously alter the behaviour of the adhesion
- Avoid storing the rolls near windows and doors, where at all possible, for the above reasons
- The rolls should not be stored for more than period of storage 60 days in warm weather (spring and summer) or 30 days in cold weather (autumn and winter) before use
- The rolls may, however, be exposed to higher or lower temperatures for brief periods (a few hours): this should not create problems, provided the exposure is proportional to the temperature limits and, in any case, the temperatures during actual installation must not fall outside of 2 °C - 35 °C
- MATIBLOCK glue: properly sealed in a warehouse for a few years. However, we recommend you use it within 2 years from purchase.

MATIBLOCK glue



Installation diagram: seal edges and joints with suitable adhesive tape.



## ITEM SPECIFICATIONS

### TROCELLEN CL1 ROLLS

Chemically cross-linked, closed cell polyethylene rolls, density 30 kg/m<sup>3</sup>, anthracite grey, Class 1.

- Thermal conductivity coefficient at 40 °C ( $\lambda$ -value)= 0,040 W/mK (0,034 kcal/mh°C)
- Water vapour diffusion factor ( $\mu$ -value)  $\geq$  2000
- CFC free.

### TROCELLEN AL/CL1 ROLLS

Chemically cross-linked, closed cell polyethylene rolls, density 30 kg/m<sup>3</sup>, light grey, Class 1, laminated with protective embossed metallic film.

- Thermal conductivity coefficient at 40 °C ( $\lambda$ -value)= 0,040 W/mK (0,034 kcal/mh°C)
- Water vapour diffusion factor ( $\mu$ -value)  $\geq$  12000
- CFC free.

### TROCELLEN CL1/ALU ROLLS

Chemically cross-linked, closed cell polyethylene rolls, density 30 kg/m<sup>3</sup>, light grey, Class 1, with protective 50  $\mu$ m smooth or embossed aluminium laminate.

- Thermal conductivity coefficient at 40 °C ( $\lambda$ -value)= 0,040 W/mK (0,034 kcal/mh°C)
- Water vapour diffusion factor ( $\mu$ -value)  $\geq$  65000
- CFC free.

### TROCELLEN CLASS OEM ROLLS

Chemically cross-linked, closed cell polyethylene rolls, density 28 kg/m<sup>3</sup>, light green, adhesive.

- Euroclass B-s2,d0 - BL-s1,d0 for thickness range 3-10 mm; Euroclass C-s2,d0 - BL-s1,d0 for thickness 12 mm
- Classified F1, toxicity and opacity of fumes in case of fire, according to NF F 16-101
- Thermal conductivity coefficient at 10 °C ( $\lambda$ -value)= 0,038 W/mK (0,033 kcal/mh°C)
- Water vapour diffusion factor ( $\mu$ -value)  $\geq$  1000

TROCELLEN CL 1 ALU SMOOTH





## INTERNATIONAL LOCATIONS

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## TROCELLEN\*

Trocellen is the first choice European polyolefin foam-solution provider. Through continuous innovations and successful partnerships we dedicate ourselves to one goal: protecting and providing comfort for people.

After more than 40 years, with 600 employees at seven sites and many cooperating companies, various partner universities, institutes and designers we offer solutions for our business partners in various industries such as construction and insulation, automotive, leisure and professional sport, adhesive tapes, footwear and packaging.

\*Trocellen is the member of Furukawa Group.



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50° 49' N	07° 09' O	Germany
40° 28' N	03° 21' O	Spain
41° 53' N	12° 28' O	Italy
47° 30' N	19° 02' O	Hungary
02° 54' N	101° 28' O	Malaysia
35° 40' N	139° 49' O	Japan FURUKAWA

