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INSULATION

TROCELLEN NAVYCELL®

Thermal insulation for marine sector



# Navycell®

Navycell® is a light blue insulating product, consisting of polyethylene foam, chemically cross-linked and closed-cell, laminated with a 20 µm smooth aluminium foil on one side and with a self-adhesive layer on the other.

Expressly designed and developed for use in applications requiring special safety measures, such as in naval sector, navycell® fulfills all the requirements set by the latest European Directive on marine equipment - "Council Directive 2014/90/EU" and European Regulation 2018/773. Consequently, the material has the certificate 0987/MED-B/836 and it is labelled with the wheelmark.

The MED marking guarantees the product quality and safety in two ways:

- the product is certified according to the fire reaction regulations (Module B - EC Type Examination certificates).
- the production quality of the manufacturer is audited and approved by external IMO accredited laboratory (Module D - Production quality assurance).



TECHNICAL DATA			
TECHNICAL CHARACTERISTICS	NORM	UNIT	NAVYCELL®
MED Marking	Dir. 2014/90/EU	-	MED/3,18d
Thermal conductivity at 0°C (λ value)	EN 12667	W/mK Kcal/mh°C	0,037 0,032
Thermal conductivity at 23°C (λ value)	EN 12667	W/mK Kcal/mh°C	0,040 0,034
Thermal conductivity at 40°C (λ value)	EN 12667	W/mK Kcal/mh°C	0,042 0,036
Water vapour diffusion coefficient	EN 10546	-	≥15000
Density	EN ISO 845	Kg/m³	30
Thickness	EN ISO 1923	mm	From 3 to 32 (see base specifications)
Colour	Spec. BASE	-	Light blue + aluminium sheet
Compressive stress at 25%	EN ISO 3386/1	kPa	35
Compressive stress at 50%	EN ISO 3386/1	kPa	95
Water absorption after 28 days	ISO 2896	Vol%	<3
Thermal Stability (< 5%)	ISO 2796	°C	95
Maximum operative temperature range		°C	-80 ÷ +95
Maximum operative temperature range with mechanical stress		°C	-40 ÷ +95

# STORAGE, INSTALLATION, USE AND MAINTENANCE GUIDELINES

**Navycell®** storage, installation and maintenance must be carried out according to the following recommendations:

- The ideal storage temperature should always be kept within +10 and +25°C. Thermal fluctuations may affect the adhesive properties of the material.
- The material cannot be used in open-air systems unless properly protected from atmospheric agents.
- When installing the material, the temperature must be between +2 and +35°C in order not to compromise the adhesive effectiveness.
- Before installing the material, make sure that all the surfaces are clean, dry and free from traces of oil or dust. Do not use solvents or aggressive products to clean the surfaces, but use dry clothes instead.
- The adhesive is compatible with the most common supports and surface treatments. In case of special treatments or painting, verify the compatibility and the adhesive sealing.
- Do not insulate systems while they are in operation. Turn on the insulated equipment only after 48 hours, in order to let the adhesive be completely effective.
- **Navycell®** can be used to insulate pipes and ducts of "cold" service systems, with temperatures below 50°C: any other application is not guaranteed.
- When installing the material, avoid creating internal stresses that could cause the detachment of the material after some time. For this reason, do not stretch edges of material when joining them but always try to press them together.
- The glues used are pressure-sensitive, meaning that you must apply suitable and even pressure across the whole surface to allow a perfect adhesion in every point and avoid the formation of air bubbles. For this purpose, it is recommended to use a pressing roller.
- Avoid altering the surface of the product. Possible painting systems must be evaluated according to the reference legislation.
- In case of serious damage, blisters or peeling, replace the material after cleaning and removing grease from the surface.



## ONBOARD USE

- Insulation of air ducts
- Cold utility piping
- Onboard refrigeration systems
- Refrigerating compartments



## INTERNATIONAL LOCATIONS

Lead Plant

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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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from the Official Website

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

