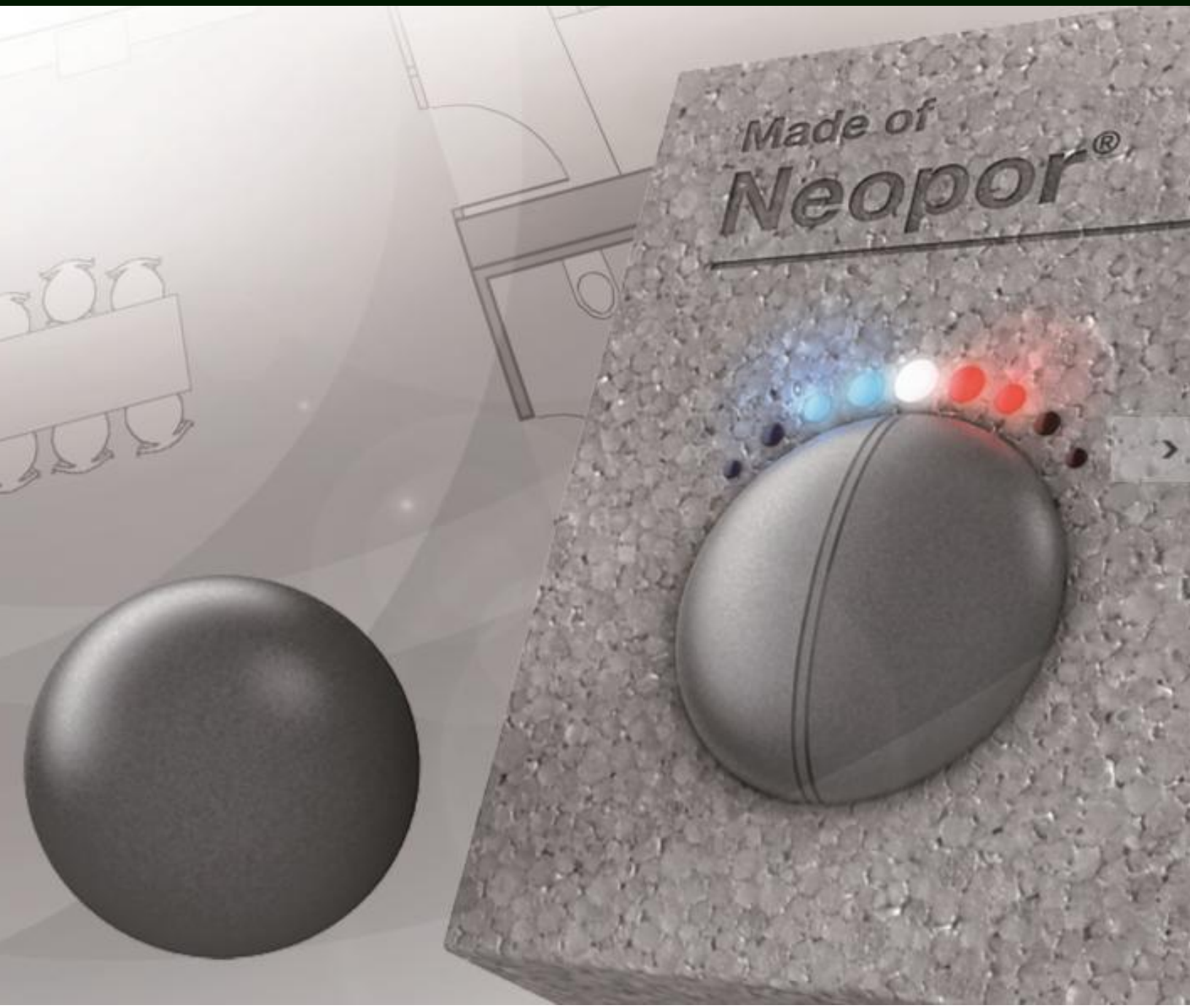
DipSystems Graphite-Enhanced Insulation
Neopor Sheets & Blocks



DipSystems graphite enhanced insulation sheets are today's eco-efficient and cost-effective 'Meet Code' insulation solution for architects, contractors and building owners.

DipSystems
Insulation

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GREEN BUILDING COUNCIL SA

Made of Neopor® provided by BASF

DipSystems Graphite-Enhanced Insulation
Neopor Sheets & Blocks

Like Styropor®, Neopor®, was developed by BASF and today Neopor is the solution for efficient insulation worldwide.

With Neopor®, BASF has taken the classic Styropor® a step further. This new material for modern insulating is foamed just like Styropor® and processed to boards and moulded parts.

The vital difference between Neopor® and Styropor® can be seen with the naked eye in the silver-gray colour. In Neopor, graphite is added to the material, absorbing and reflecting heat radiation and improving the insulating performance of traditional EPS by up to 20 percent, making DipSystems Neopor® sheets and blocks an economic investment in the future.

Builders and planners can make use of this advantage by using DipSystems Neopor insulating sheets and blocks to achieve a much higher insulating performance and even lower energy consumption.

DipSystems insulation provides architects, engineers, craftsmen, builders and property owners with significant design and cost saving benefits:

- ✓ Cost-effective
- ✓ Durable and long lasting
- ✓ Water-repellent
- ✓ Low moisture absorption
- ✓ Diffusion-open
- ✓ Sturdy and dimensionally stable
- ✓ Environmentally friendly
- ✓ Eco-efficient
- ✓ Resistant and rot-proof
- ✓ Light weight and easy to handle
- ✓ Dust-free and easy to install
- ✓ Non-irritating to the skin

Insulation applications:

- ✓ Roof insulation and protection
- ✓ Interior insulation
- ✓ Under slab insulation
- ✓ Ceiling insulation

Key Features of DipSystems graphite-enhanced materials:

Property	Standard	Results
Density, kg/m^3	ISO 845:1988	16-24
Compression, KPa	ISO844:1978	200-250
Water Absorption, %	ISO 2896:1998	0.21
Thermal Conductivity, W/m.k	ISO 8302:1991	0.029 – 0.030
Tensile Strength	ISO 1926	24-28

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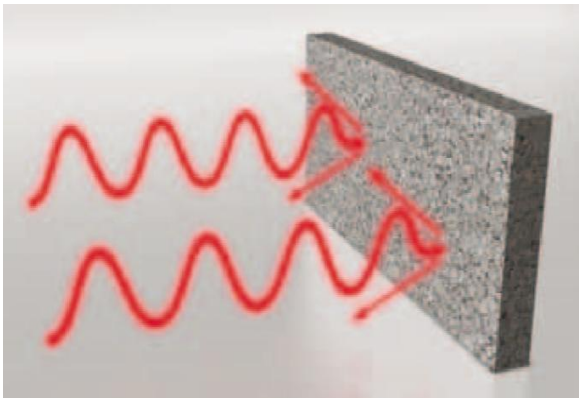
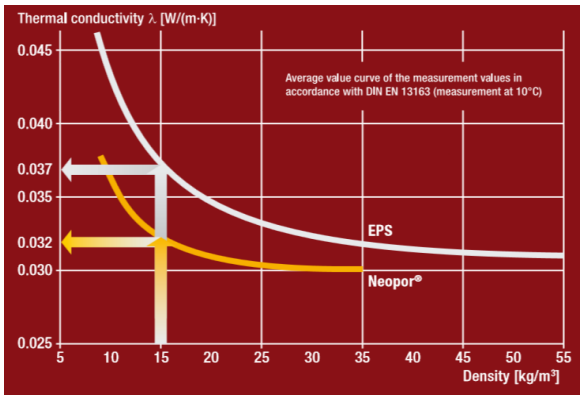
Thermal insulation
Significant advantages for building practice

The excellent effect of DipSystems Neopor® insulating products offers architects, planners, craftsmen, and builders, significant advantages in the building practice. The graphite infrared absorbers or reflectors considerably reduce thermal conductivity, and the permeability of the material with regard to heat is lower than in normal insulating boards.



Thermal conductivity
Optimised insulating performance

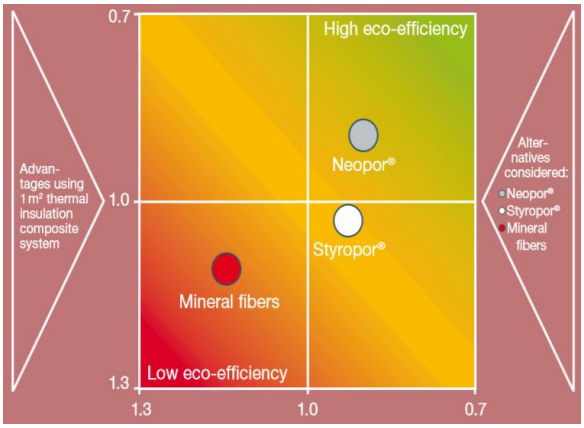
Vastly improved insulating effects can be achieved with DipSystems Neopor® sheets, particularly with very low bulk densities. The diagram shows that Neopor insulating materials with a bulk density of 15 kg /m3, for example, achieve a thermal conductivity of 0.032 W/(m·K). Compared to conventional EPS with the same bulk density, the thermal conductivity is 0.037 W/(m·K).



Sustainable and Efficient
50% Lower Use of Raw Materials

The starting material for expanded polystyrene is polymerized styrene. The bead-shaped beads are foamed in various stages to up to fifty times their original volume using water vapour.

Compared to conventional EPS, around 50% less raw material can be used to produce DipSystems graphite-enhanced insulating sheets, giving a demonstrably greater advantage with low environmental impact. It therefore achieves the best results in the eco-efficiency analysis.



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Continuous Insulation from the Basement to the Roof

With DipSystems Neopor® sheets, you can apply a general structured insulating concept throughout the house. From the basement to the roof, from external insulation in a thermal insulation composite system to internal insulation, you can build on proven applications from a material that offers the highest efficiency.

In new buildings and renovation projects, you can achieve optimal thermal insulation that sustainably enhances the fabric of the building and retains the value of the property for quite some time.

Insulation applications:

- Roof insulation and protection
- Interior insulation
- Under slab insulation
- Ceiling insulation

Please contact a DipSystems representative for more information.

Suggested BOQ Specification

"DipSystems graphite-enhanced Neopor Board, density 24-36kg/m3, of (_) mm thickness and (_) mm width."

Detailed applications specific specifications will be provided on request.

DipSystems sheet sizes

DipSystems Neopor® sheets are cut according to our clients needs. Our base blocks are 6m x 1.22m in length and width respectively.

DipSystems Neopor® sheets are cut from blocks that remain under storage for a period of 14 days to complete all the shrinkages and ensure dimensional stability.

Advantages at a glance

Versatile: Constructions that call for a restriction on the thickness of the insulating materials, for example in modernisation, can easily use thinner insulating boards with the same insulation performance, compared to conventional EPS. The result is considerable savings in energy consumption.

Quality: Neopor insulating boards are aging and rot-resistant, and are extremely sturdy and dimensionally stable. They are diffusion-open and highly water-repellent, and offer the advantage of low water absorption.

Handling: Neopor insulating boards can be installed quickly and in any weather condition. They are easy to cut and grind, and do not dazzle in sunshine. Processing does not produce dust or cause irritation of the skin.

Soundproofing: In addition to energy savings, elasticised Neopor insulating boards also enhance the soundproofing of buildings.

Durability: The aging- and rot-resistant material properties, in particular, make Neopor insulating materials a durable, long-term, and safe thermal insulation.

Environmentally Friendly: Neopor insulating materials offer greater insulating performance and up to 50 % lower use of raw materials than conventional EPS, helping environmental conservation and saving money. Environmentally-friendly Neopor insulating materials do not contain CFCs, HCFCs, HFCs, or other halogenated cell gases. They contain air as cell gas, which guarantees the preservation of the thermal conductivity throughout the life of the construction.

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