

# industry

**purenit<sup>®</sup>** – a multi-functional material  
with a flexible PLUS in application



**purenit<sup>®</sup>**  
made by puren<sup>®</sup>

*PURe technology!*



# Construction and thermal insulation of the first kind for components and building parts.

industry

## Flexible, cost-efficient, future-oriented.

There is hardly any construction, insulation or any other material in the building and construction industry providing as many advantages at the same time as purenit®. Whether used as construction element for façades, high-grade base material to produce windows, basic material for partitions or high-grade durable doors – purenit® is setting standards.

In times of consistently increasing energy cost, thermal bridging is no longer acceptable. High-class building insulation is not only a question of the insulation shell but, consequently, expands into the details of façade construction, window materials and many other construction elements and components.

## purenit® – twice the performance, twice the quality!

Basically, purenit® performs even threefold: Apart from its outstanding mechanical properties so important in construction to achieve cost-efficient handling, purenit® convinces with its excellent insulating values and good thermal diffusion. Depending on the respective type of material, purenit® has a bulk density of approx. 400 to 700 kg/m³, it is light-weight and therefore a light load. Its homogenous material structure and density, however, are responsible for its excellent insulating characteristics. No wonder, purenit® is the high-performance alternative to wooden products.



Quality doors – convincing through economic efficiency – thanks to purenit®



purenit® is ideally suited to build and clad modern façade structures

Partition systems made of purenit® may be laminated with a multitude of top layers. Doors, dome lights, attachments for furniture and much more - purenit® is the basis for an indefinite number of office designs.



# purenit® convinces through clear facts.

## Performance on the dot.

purenit® is much more than just a construction material. Based on its indefinite types of application and its multitude of excellent properties and characteristics regarding processing throughout various industries and product areas, we consider purenit® a multi-purpose material.

purenit® is a polyurethane product on (PUR/PIR) rigid foam basis, free of CFCs and HCFCs, with a high thermal insulation grade. You can process this high-performance multi-function material on any wood-working machine, it is recyclable and originally not laminated.

On account of its outstanding composition, purenit® can be fastened with screws, is stable against moisture, hard, light-weight, easy to handle and process, temperature-resistant, heat-insulating, resistant to chemicals, excels through its high rigidity, and may be laminated and/or combined with other materials.

## Areas of application:

- Profiles or strips/ledges
- Paste-ins in wet and damp rooms, façades
- Bathroom and nautical furniture
- Kitchen counter tops
- Basis for sandwich elements

## Formats/Dimensions:

Thicknesses: 10 – 50 mm  
 Standard: 2000 x 1200 mm  
 other thicknesses and formats upon request

## Technical data

Fire classification	B2, DIN 4102, does not drip
Thermal conductivity grade	$\lambda = 0,06-0,10 \text{ W/(m.K)}$
To be used in temperature ranges	from $-50^\circ \text{ C}$ to $+100^\circ \text{ C}$
Bulk density	400 to 700 $\text{kg/m}^3$
Compression strength acc. to DIN EN 826	4 to 8 MPa
Resistant to aging	non-rotting, mould- and mildew-resistant
Resistant to chemicals	mineral oils, acetone, methylene chloride and other solvents
Resistant against	diluted bases and acids
May be laminated or coated	with almost any type of surface cover
For high mechanic loads	
Suitable for processing with any popular adhesive/system	

purenit® is harmless from a biological and building ecology point of view.



# A new (out)look for furniture to live and work in



## **purenit® is an all-rounder – and not afraid of being compared.**

If the job requires cost-efficiency but the quality must not be neglected, purenit® opens up new perspectives for modern furniture design.

On account of its easy processing, purenit® is especially attractive for the furniture industry. purenit® can be treated like wood. But: purenit® provides a multitude of characteristics wood or wooden products do not have. Thus, damp room furniture is profiting from purenit® being resistant to moisture and not expanding. Whether bathrooms, wellness areas, kitchens or the lab – purenit® furniture and counter tops will stay in shape. If a top layer gets damaged, not to worry: purenit® is resistant to moisture and even to chemicals (acids, bases, solvents).

Stable and still light-weight – purenit® is a functional material giving furniture its very own quality. purenit® will resist dynamic deformation and may be combined with various top layers.

## **A clean and cost-efficient business.**

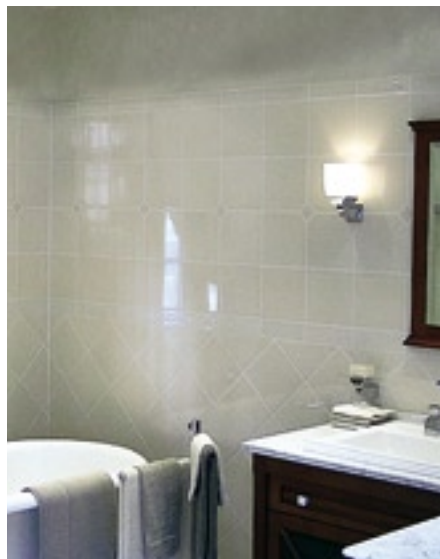
Of course, purenit® is free of preservatives (formaldehyde) and harmless from a biological point of view. Moreover, processing purenit® practically leaves no waste. Cuttings and chips may be recycled environmentally-friendly.

### **purenit® for the furniture industry: Convincing through quality.**

- To be processed as easy as wood
- Moisture-resistant like plastics
- Can be attached with screws, laminated, easy to glue and paste
- Light-weight and stable
- Free from preservatives



*purenit® will not expand. Even after 10 days in water, its fabric will not change.*



*Whether for private or commercial applications, whether in your kitchen or the lab – purenit® sets new standards and convinces in every aspect.*



# Better safety, more cost-efficiency in vehicle construction.



## Partner to the automobile industry.

In vehicle construction, criteria for materials and construction are clear: Durability, economic processing, stability and light weight are of superior importance when designing a vehicle superstructure. For many years now, puren is one of the leading OEM suppliers in the vehicle manufacturing industry. puren's extensive product line features refrigerating/freezer trucks, mobile homes/caravans, superstructures for trucks and vans, as well as elements for nautical construction and trains.

## Using purenit® totals up right from the beginning:

One efficient measure to save on fuel when driving a vehicle is to use as little energy as possible by reducing its weight. Of course, stability has to be maintained. No wonder, purenit® is suited so well for the construction of vehicle superstructures.

purenit® is notably light, may be laminated with almost any layer or top cover used in vehicle construction and can be processed extremely cost-efficient. purenit® easily bypasses dynamic deformations common in vehicle construction. Typically, purenit® is used for floor structures, reinforced components, linings and superstructures, furniture and fixtures. An economically convincing point for the automobile industry.

## purenit®'s PLUS for the vehicle construction:

- Absolutely resistant against moisture
- Its superior product performance convinces in difficult climatic applications

Its advantages for the later operation of the vehicle are also distinct: A stable, light-weight vehicle superstructure reduces the inherent weight, increases payload and contributes to reducing fuel consumption.

**low material requirement  
+ easy processing  
economic and cost-efficient  
manufacture**



*Hi-speed trains are the future – here, too, purenit® makes an important contribution.*

*Campers, motor homes and hi-performance refrigerating trucks are excelling through their hi-class superstructures: Here, the convincing properties of purenit® and other puren products are setting new standards.*



www.puren.com

**puren gmbh**

Rengoldshauser Strasse 4  
88662 Überlingen  
Germany  
Phone +49 (0) 7551 8099-133  
Fax +49 (0) 7551 8099-156  
industry@puren.com  
www.puren.com

