# VACUSPEED® High performance insulation system





# Morgan Advanced Materials

Morgan Advanced Materials is a world leader in advanced materials and is committed to building a sustainable competitive advantage in attractive markets with truly differentiated products and services underpinned by world-leading technology. We supply innovative products which enable our customers' products and processes to perform more efficiently, more reliably and for longer.

## The main advantages of VACUSPEED®

- VACUSPEED<sup>®</sup> the modular system for highly efficient insulation
- easy and quick to install
- available from the warehouse
- slim insulation with an excellent insulation value allowing very low structural heights
- even more flexible due to seven new standard sizes
- with three functional layers for various applications
- available in three thicknesses: 20, 30 and 40 mm

## VACUSPEED<sup>®</sup> – modular insulation system

Vacuum insulation panels have been used successfully since years for high performance insulation in various industrial sectors. VACUPOR<sup>®</sup> has established itself as a well-known brand name for vacuum insulation. In the construction industry the excellent insulation properties at low structural heights have been proven serveral times.

The new VACUSPEED<sup>®</sup> system was developed to better meet the specific requirements of the building practice.

With the smart VACUSPEED<sup>®</sup> modular system, consisting of seven standardised panel sizes, various surface geometries can be insulated faster and in a more effective way.

The few and narrow boundary sections are easily filled with a high-quality cut-to-size conventional insulating material, considerably reducing planning efforts.

Compared to substantially thicker conventional insulation materials, the U-value of VACUSPEED<sup>®</sup> – measured over the entire surface – remains on a very high level. This is explained by the superior insulation properties with a rated  $\lambda$ -value of 0.007 W/(mK)\*.

VACUSPEED<sup>®</sup> is thus particularly suitable for fast, easy and highly efficient insulation of floors, roofs and terraces.

## VACUSPEED<sup>®</sup> – Quality speaks for itself

VACUSPEED<sup>®</sup>, as well as our already well-known VACU-POR<sup>®</sup> products, has achieved a building authorities approval since December 2009. This approval covers a varied range of construction applications both indoors and outdoors, and is constantly expanding with new applications.

Porextherm has been an official member of Güteschutzgemeinschaft Hartschaum e.V. (GSH), the quality control association for high resistance foam. Well-known manufacturers of vacuum insulation panels, as well as suppliers of barrier films and raw materials have come together in this products quality assurance association with the aim of ensuring the quality of their products. Porextherm is thus subject to very strict quality criteria, particularly with regard to those of its products which are commercially available in the construction industry.

Besides the construction authorities approval, as well as the RAL quality label and the Ü-label for external quality monitoring, Porextherm is also certified according to the ISO 9001 quality management system and the ISO 14001 environmental management system.

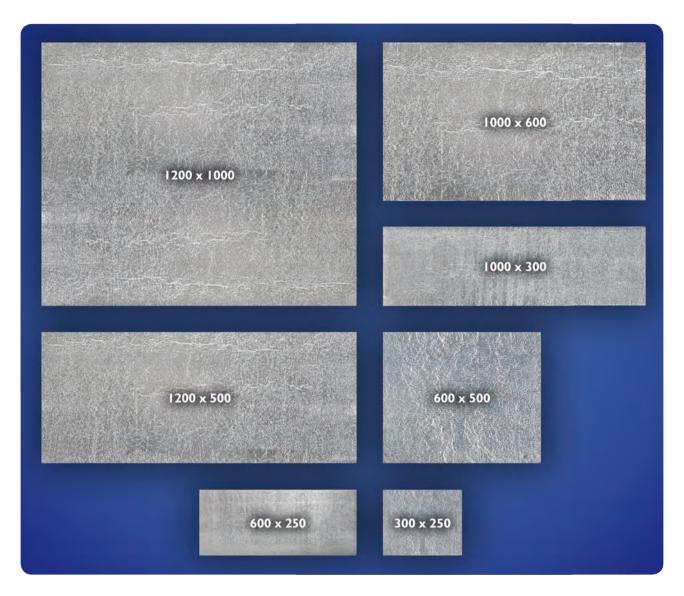
An environmental product declaration (EPD) according to ISO 14025 is available for VACUPOR<sup>®</sup> and VACUSPEED<sup>®</sup>.



\* The measurement value refers to the vacuum insulation panels only



# VACUSPEED<sup>®</sup> – now available from stock in seven sizes,

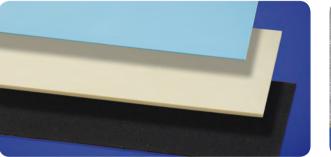


The efficient floor, roof and terrace insulation is now even easier and more flexible with seven new VACUSPEED® sizes.

Even more, the three different thicknesses and the three available layer versions allow almost unlimited possibilities to achieve the desired level of insulation at low structural heights. Our installation tool offers even more effective support in planning and determining the quantity needed for the particular vacuum insulation panels. The VACUSPEED® system therefore significantly reduces planning and installation costs.

In order to achieve quick and efficient insulation, we offer the standardized VACUSPEED® panels in three thicknesses straight from the warehouse. The covered versions are ready for shipment in just a few working days.

## four versions and three thicknesses



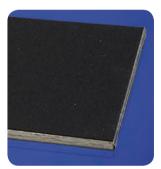


#### **VACUSPEED**®

Without functional layers, suitable for most floor, roof and terrace applications. Available straight from the warehouse.

#### **Functional layers:**

- XPS panel, thickness: 3 mm
- PIR panel, thickness: 17 mm
- Rubber granulate mat, thickness: 3 mm



#### VACUSPEED® RP

Covered on both sides with a rubber granulate mat. Suitable for floor and terrace insulation. Total thickness: approx. 26, 36 or 46 mm. Available ex works in five working days.



Upon request, the faces of the VIPs (vacuum insulation panels) can be protected with an additional fabric tape.



#### VACUSPEED® XPS

Very thin XPS covering on both sides. Suitable for thin structures in floor areas and reveals. Total thickness: approx. 26, 36 or 46 mm. Available ex works in five working days.

## Available VIP thicknesses without functional layers:

- 20 mm
- 30 mm
- 40 mm



#### VACUSPEED® Roof

Covered with PIR panel and rubber granulate mat. Suitable for insulation of flat roofs. Total thickness: approx. 40, 50 or 60 mm.

Available ex works in five working days.



# Quick and easy handling

## Individual installation

Rooms are often not rectangular, and can appear with protrusions or intruding angles. VACUSPEED<sup> $\mathbb{B}$ </sup> – the smart modular system allows an installation in almost all conventional floor plans.

The time-consuming production of VIP special sizes is no longer necessary with VACUSPEED<sup>®</sup>. Important: the laying pattern should have no cross joints and the largest sizes should be laid first wherever possible. The smaller sizes usually fit in the border areas. The missing edging is simply fitted, using cut-to-size conventional PU foam panels.

### More efficient performance

VACUSPEED<sup>®</sup> is a very effective insulation material, both in terms of its insulation effectiveness as well as its handling. As long as you follow the simple working instructions, you can achieve fast, simple and flexible results with VACUSPEED<sup>®</sup>, and provide elegant solutions to most problem areas encountered in construction.

Multiple layers of VACUSPEED<sup>®</sup> can also achieve even better insulation performance. The floor structure can be continued in a normal way.

You can find some sample constructions and invitation to tender texts, etc., on our website: www.bau-vip.com. Please also refer to our product- and handling instructions.



...and fit it flexibly.



Measure the edges...



Double VIP laying for improved performance.



...cut the PU foam panel...



# VACUSPEED<sup>®</sup> – at a glance:

### Insulation values and technical design:

Fumed silica core, fleece wrapped and sealed under vacuum in an aluminized high barrier film.

Thermal conductivity at the centre of the panel, measured at a 10° C average temperature

Rated  $\lambda$ -value\* according to DIBt approval no. Z-23.11-1662

Coverings: VACUSPEED® RP VACUSPEED<sup>®</sup> XPS VACUSPEED<sup>®</sup> Roof

\* The measurement value refers only to the VACUSPEED® panel without covering.

Effective and economical

VACUSPEED<sup>®</sup> beats conventional insulation materials in many areas:

- Significantly higher insulation performance for even better energy balance results
- Considerably thinner structures for intelligent, constructive solutions in construction applications
- Very fast availability from the warehouse
- Sophisticated modular system for on-site customisation
- Significantly lower planning costs, with no need for complex and costly layout plans and position lists
- Multilayer installation concept for even more efficiency
- Proven technology with the approval of construction authorities
- Assured quality through the RAL quality label

## Seven standard sizes available

1200 x 1000 mm	600 x 500 mm
1200 x 500 mm	600 x 250 mm
1000 x 600 mm	300 x 250 mm
1000 x 300 mm	

## **Material thickness**

Available in thicknesses 20 mm, 30 mm and 40 mm – without covering

## Material for edging

The cut-to-size edge strips made of PU foam panels are available in the total thicknesses ordered. Size: 1000 x 300 mm

## **Delivery times for orders**

VACUSPEED® VACUSPEED<sup>®</sup> RP VACUSPEED® XPS VACUSPEED<sup>®</sup> Roof

from the warehouse 5 working days ex works 5 working days ex works 5 working days ex works

7

**XPS** layers

 $0,0043 \text{ W/(m} \cdot \text{K})$ 

Rubber granulate mat

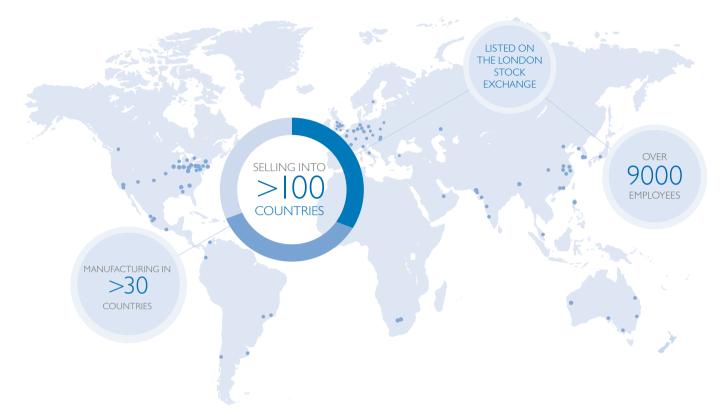
**PIR**/rubber granulate mat

 $0,007 \text{ W/(m \cdot K)}$ 



Germany

## MORGAN ADVANCED MATERIALS





4/2015/1000