

TT core

Introduction

TT core is a microporous insulation panel optimized for use in Vacuum Insulation Panels (VIPs). The Unicorn VIP core material features a very low density, which results in the lowest possible thermal conductivity, typically around 4 mW/m K. Despite its extremely low density, the panels are easy to handle.

Unicorn offers customized cutting services. For large volume orders, we can utilize customized pressing molds to minimize cutting waste. As an option, the core can be wrapped in non-woven fabric to reduce dust during the evacuation process.



Technical Data

Thermal Conductivity

at atmospheric pressure and room temperature	20 mW/m K
at a pressure of 1 mbar and a density of 180 kg/m³	app. 4 mW/m K, lower values are possible on request
tolerances	± 5%, depending on recipe, higher or lower values are possible

Other Technical Parameters

application temperature	150 °C / 302 °F
density (refering to the density of the whole board. Within the board deviations occur)	175 - 250 kg/m³
microporous core colour	grey

Available Sizes

dimensions	1020×615 mm, 1000×1000 mm, 300×300 , more sizes on request
thickness	4-50 mm, more sizes on request
tolerances	can be defined according to customer requirements



Options

Cutting

We cut to your required rectangular dimensions.

Net Shape Pressing

We provide customized molds for larger quatities to improve cut-off losses.

Non-woven Wrapping

The option "wrapped in non-woven fabric" puts a dust prove but air permeable cover around TT core. Equipped with this option TT core can go directly into the drying oven. You will not create dust by cutting or wrapping in your factory. As a side effect the flexural strength is improved for a better handling. The non-woven fabric can resist temperatures up to 150 °C which allows fast drying.



Technical Limitation

Water and other liquids will irreversibly destroy the microporous structure and as a result the insulation performance of the material.

Declaration of Non-hazardousness

According to the regulation of the European union 2006/1907/EC this material is classified as non-hazardous. The used fibers are not respirable as defined by WHO.





