

# SLENTITE®

## The New High-Performance Insulation Board

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New Market Development  
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# Challenges of today and tomorrow

## Existing Buildings



**Driver:**  
Energetic retrofitting of historic buildings

## New Buildings



**Driver:**  
Lack of space, aesthetics



Thermal insulation materials help to save energy

# We continue to innovate thermal insulation materials



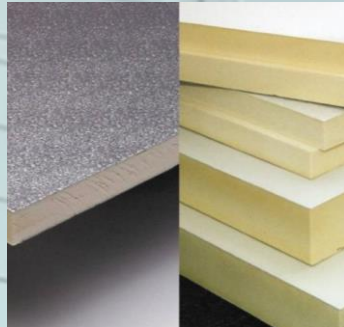
1950  
Styropor®



1970  
Styrodur®



1990  
Elastopor®



2000  
Neopor®



2010  
Elastopir®



2020  
SLENTITE®



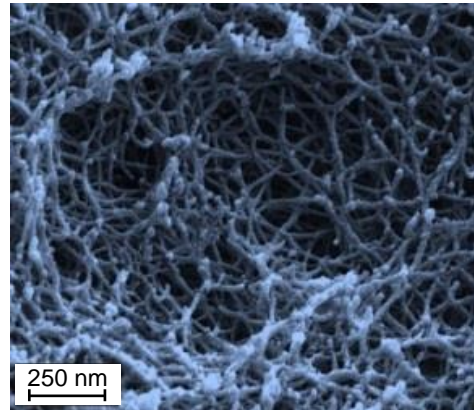
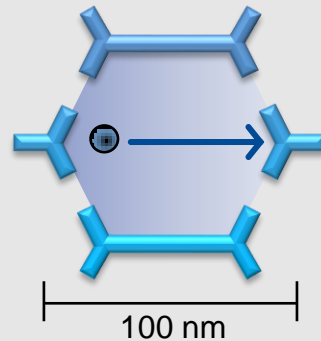
# R&D SLENTITE®

## Game changer in thermal insulation

### Knudsen effect

#### Aerogels

Far less contribution to thermal conductivity of the cell gas!



First quantities of polyurethane-based aerogel successful manufactured



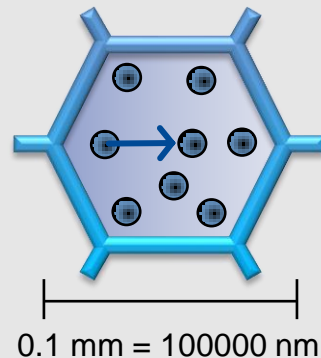
New chemistries and process technologies for nanoporous materials developed



New chemical and physical concepts for high performance thermal insulation materials explored

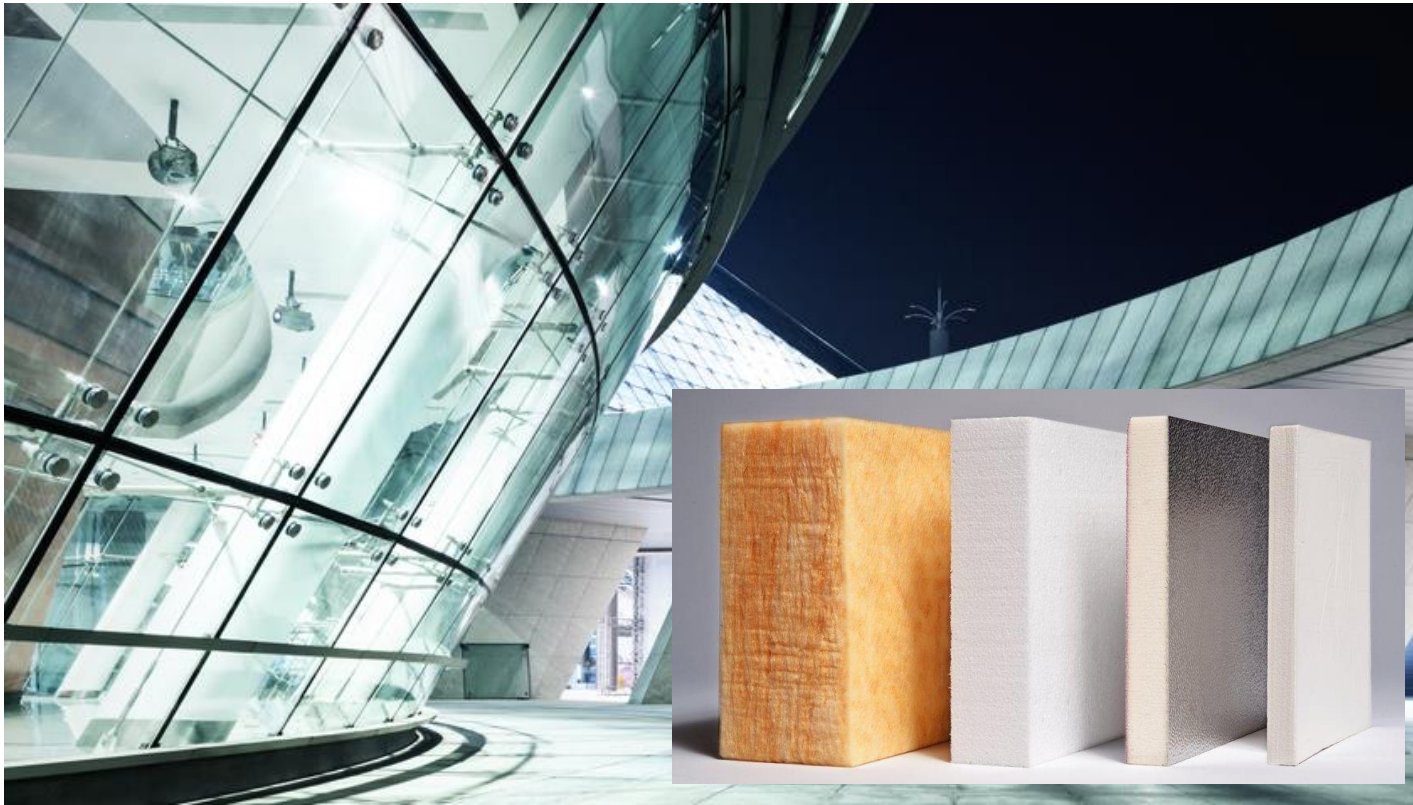
#### Standard foams

Large contribution to thermal conductivity





# Constructing tomorrow



- Lambda value of 17 mW/mK vs. industry standard of 21 to 40 mW/mK
- 25% - 50% slimmer insulation vs. industry standard
- Compression strength of > 300 kPa, twice as good as today's PU insulation panels
- Open-pored structure ensures good moisture regulation

**SLENTITE®**: A unique high-performance product for the insulation sector

# From pilot phase to production

## Pilot plant, Lemfoerde

- Manufacture larger samples
- Scale up for production plant concept
- Joint development for market-readiness with strategic partners
- Definition of business model

## Finalization of production concept

## Production

- Start of production
- In house production depending on business model decision

2015

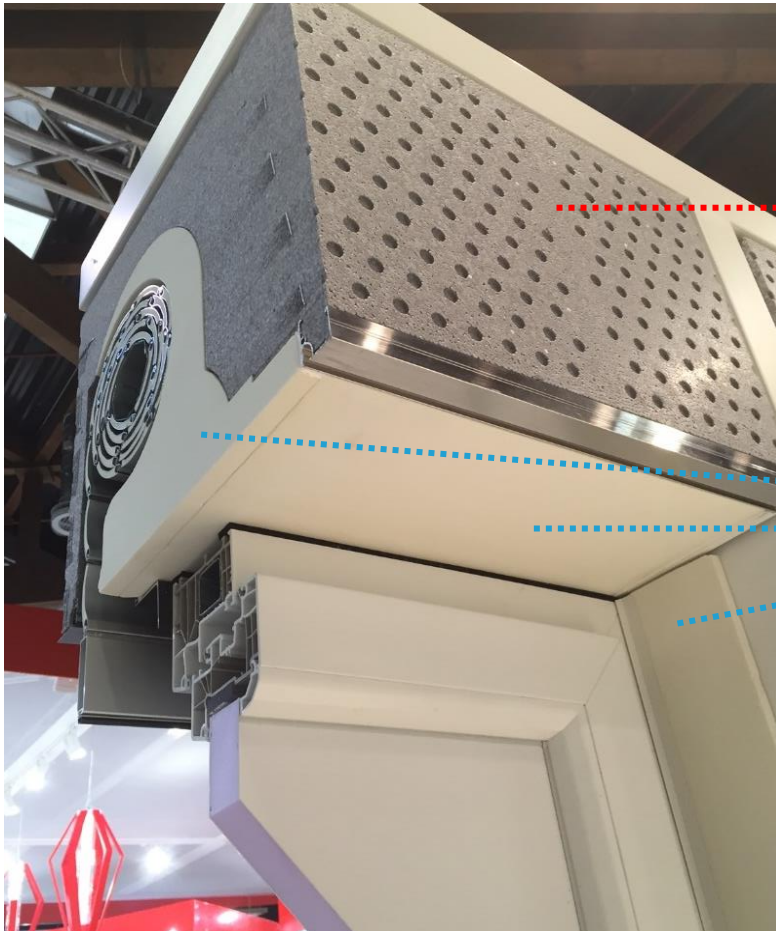


2017

2020



# SLENTITE® in customer project



Neopor®

SLENTITE®

Joint presentation at Fairs  
Frontale and IEX 2016 with



We create chemistry