



Quartzene® is a nano-porous aerogel type silica material produced by Svenska Aerogel AB through patented ambient pressure drying technology. It can be produced in a range of densities, thermal conductivities and mechanical resistance. The material, in the form of powder or granules, is typically hydrophilic but it can be made hydrophobic by methylation. Its main applications areas are thermal insulation, moisture buffering capacity and molecular filtration (air purification).

Name of product	Quartzene®		
Function of product	Insulation / Moisture Buffer / Air Purification		
Form	Powder/Granules		
Raw Material	Amorphous silica		
Properties			
Property	Unit	Value	Test methods/standardisation
Chemical/physical properties			
Bulk density	kg/m ³	40-300	
BET-surface	m ² /kg	< 750	
Structures and construction			
Dimensions of product	mm	0-4	
Mechanical properties			
Compressive strength	N/mm ²	0.01-5	fracture stress
Flexural strength	N/mm ²		
Tensile strength	N/mm ²		
Thermal properties			
Thermal conductivity	mW/(m·K)	22-40	
Specific heat capacity	J/(kg·K)	750	
Hygrothermal properties			
Water vapour diffusion resistance factor			
Moisture buffer value	kg/(m ² ·%RH)		
Water vapour permeability	kg/(m·s·Pa)		
Acoustic properties			
Sound absorption coefficient	%		
Sound reduction index	dB		
Fire Safety			
Reaction to fire		Incombustible	
Resistance to fire	Minutes		
Environmental properties			
Non-renewable energy	MJ/kg	137	
Embodied energy (% renewable)	MJ/FU*		*FU= 1m ² of insulation material for R=1 m ² K/W
GHG emissions	kg CO ₂ eq	6.64	per kg
GHG emissions	kg CO ₂ eq/FU*		*FU= 1m ² of insulation material for R=1 m ² K/W
TVOC (SVOC)	µg/m ³		
Radon	Bq/m ³		
Photocatalytic capacity			