kwark® XP500

Product Data Sheet

Kwark® XP500 is a high performance silica aerogel powder developed and produced by Enersens. This innovative powder is ideal for those looking to develop high thermal performance coatings and high added value products. The exceptional properties of Kwark® allow it to be used for building and industrial coating applications, offering functional advantages such as improving thermal comfort, eliminating thermal bridges, improving energy efficiency, fire resistance, safe touch performance for personal protection and prevention of condensation and humidity.

Advantages

Ultra-low thermal conductivity

Hydrophobic and breathable

Lightweight

Translucent material

Non-flammable and durable material

Main characteristics

Thermal conductivity (intrinsic) at P_{atm}	13 mW/m.K^{-1} at 20°C
Operating temperature (to keep hydrophobicity)	-195°C to 450°C
Operating temperature (to keep insulation in dry atmosphere)	-195°C to 800°C
Particle size range	From 10 to 500 µm
Apparent density	50 to 80 kg/m^3
Acoustic property (500-6400 Hz frequency)	+ 50% of absorption coefficient
Surface chemistry	Hydrophobic - Corrosion resistant
Pores diameter	5 to 12 nm
Mercury porosity	90 to 98%
Specific surface (N_2 BET)	750 to 950 m^2/g
pH stability range	3.0 to 6.5 *
Minimum ignition temperature	470°C
Heat capacity at 20°C (Cp)	1582 J/kg.K^{-1}
Resistivity	5.9x10^{13} Ω.m
Emissivity	0.93

* for values out of range contact us

ENERSENS absolute insulation

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