



Zhongheng New Material Si-tech Co., LTD

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Vokes® NPS (Nanoporous insulation sheet)



Characteristics:

Vokes® NPS, flexible flat insulated felt which is made of fumed silica by nano technology. It is of small density, high compressive strength, waterproof, and many other superior performance, widely used in all kinds of industrial piping, tanks, and various vessels in regular/irregular shapes.

Advantages:

- Wide insulation range: Long-term working temperature is at the period of -120°C - 650°C .
- Extremely low and stable thermal conductivity: At normal temperature, the insulated performance is at least 3-5 times better than the traditional materials. At temperatures higher than 300°C , the insulated performance is at least 4-8 times better than the traditional materials.
- Flexible: It's good for wrapping pipes and equipments.
- Space saving: It drastically reduced insulation thickness.
- Easy installation and maintenance: The small density makes installing safely and easily.
- Corrosion resistant: Products are made of inorganic silicates, it doesn't include soluble chloride ions, won't cause corrosion on equipments, pipes.
- Soundproof/Shockproof: It helps acoustic noise reduction and shock buffer.
- Waterproof: Nano particles of product themselves are super hydrophobic.
- Durable: It has a long working life.

Applications:

- Metallurgical and Mechanical Industry
- Oil and Energy (piping, boiler, etc.)
- Glass furnace
- Aerospace and Military.

Product Data:

Property	Value	Standard
Surface Color	White/Grey	
Geometry	Rectangular shape (without protruding flanges*)	
Refractoriness	800°C	GB/T5486-2008
Working Temperature	≤650°C	
Density	≤300kg/m ³	GB/T5486-2008
Thermal Conductivity (Surface temperature: °C)	50	0.016W/(m·k)
	200	0.020W/(m·k)
	300	0.023W/(m·k)
	400	0.025W/(m·k)
	500	0.033W/(m·k)
	600	0.040W/(m·k)
		GB/T4130-2007
Ambient Compression Strength (Compression 20%)	≥0.40MPa	GB/T5486-2008
Permanent Linear Change (600°C×24h)	≤0.2%	GB/T5486-2008
Standard Dimension (L x W) (mm)	1200x600/400x600	
Thickness	3mm/6mm/10mm	
Size Tolerance		
• 0 to 500 mm	±2 mm	
Thickness Tolerance	± 1 mm	
•Service Life	Extrapolated, depending on application up to 50 years	