



WDS[®] Ultra Plus Panel and Ultra Plus Panel HY

Product Data Sheet

Product Description

WDS Ultra Plus Panel is a rigid compact microporous insulation constituted of a mineral core enveloped in a non-combustible cloth typically being E Glass. Its engineered mineral matrix is designed for applications where the lowest shrinkage up to 1000°C (1832°F) is the main selection criteria.

Like any other microporous insulation of our industrial range produced with our exclusive WDS Technology process, it features extremely good handling properties, low thermal conductivity coefficient, giving it very good insulating properties in limited thickness, allowing to design equipment where high energy efficiency, space optimization and reduction of weight are premium factors to be considered.

Features

- Best-in-class amongst other market solutions within the same classification temperature and similar chemistry, for the lowest shrinkage it provides up to its classification temperature
- Improved (low) thermal conductivity in the widest temperature range
- Not affected by thermal shock
- Good resistance to compression associated to its low density
- Excellent cutting properties
- Non combustible

Benefits

- Dimensionally stable over time up to the maximum use temperature
- Helps to control energy efficiency and heat flow very precisely
- Easy to cut and with proven installation techniques.
- Freedom in engineering at the design stage
- Increases effective volume inner capacity or reduces encumbrance in equipment and apparels of any kind.
- Largest product dimensions available
- Environmentally friendly

Applications

- Metal production
- Petrochemical process units
- Energy storage
- Fuel Cells
- Glass making
- Ceramic kilns
- Cement kilns
- Power Generation
- Incineration

Environmental and Health Safety

WDS Ultra Plus Panel does not contain any hazardous or decomposition substance according to the EU Directive 2006/1907/EEC and IARC. The fibers or filaments used as reinforcement of the mineral core are also exonerated from any classification as defined by the WHO (World Health Organization) and EU Directive 97/69/EC

Resistance to Moisture and Water

WDS Ultra Plus Panel can also be supplied in an hydrophobic version which is water repellent in its entire thickness; the water repellent treatment withstands up to 250°C (482°F).

Non condensed moisture does not affect the product, even in its hydrophilic version

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Properties	WDS Ultra Plus Panel	WDS Ultra Plus Panel HY
Water Resistance	Hydrophilic	Hydrophobic
Classification Temperature, °C (°F)	1000 (1832)	1000 (1832)
Density, kg/m ³ (pcf), nominal	255 (15.9)	255 (15.9)
Cold Compression Strength, MPa (psi), ASTM C 165	> 0.2 (29)	> 0.2 (29)
Linear Shrinkage, %, ASTM C 365		
Full soak, 1000°C (1832°F), 24 hours	<2.5	<2.5
Chemical Analysis, % weight basis after firing		
Silica, SiO ₂	60-80	
Silicon Carbide, SiC	15-30	
Others	5-15	
Loss of Ignition, Dry condition	<2.0	
Thermal Conductivity, W/m·K (BTU·in/hr·ft²·°F), ASTM C 201, descending		
200°C (392°F)	0.023 (0.160)	
400°C (752°F)	0.026 (0.180)	
600°C (1112°F)	0.033 (0.229)	
800°C (1472°F)	0.044 (0,305)	

Shelf Life

- The product has unlimited shelf life when properly stored in dry conditions; moisture does not affect the products however condensation should be avoided for the hydrophilic version.

Standard Dimensions and Availability

Dimensions, mm (in)	Thickness, mm (in)
1000 x 1000 (39.3 x 39.3)	10, 12, 15, 17, 20, 25, 30, 35, 40, 45, 50 (0.4, 0.5, 0.6, 0.7, 0.8, 1, 1.18, 1.37, 1.57, 1.77, 2)
1000 x 600 (39.3 x 23.6)	
915 x 610 (36.0 x 24.0)	

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