WDS® MultiRoll™ & MultiRoll HY

Product Description

WDS MultiRoll is a large format flexible microporous insulation designed for applications requiring flexibility and twisting properties, together with low shrinkage and very low thermal conductivity up to 1000°C (1832°F).

Like any other microporous insulation of our industrial range produced with our exclusive WDS Technology process, it features extremely good handling and cutting 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.

Environmental and Health Safety

WDS MultiRoll do not contain any hazardous substance as defined by EU Directive 2006/1907/EEC and IARC. The fibers or filaments used as reinforcement of the mineral core are also exonerated from any classification falling under EU Directive 97/69/EC.

Resistance to Moisture and Water

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

Alternatively, the product can be supplied with an aluminum encapsulation which prevents water absorption up to 500°C (932°F). Non condensed moisture does not affect the product, even in its hydrophilic version.

Features

- Flexible in two dimensions
- Large size
- Inorganic
- Very low thermal conductivity in a wide temperature spectrum
- Not affected by thermal shock
- Improved product mineral matrix core features minimal dust release and very good handling and machining abilities
- Good resistance to compression associated to its low density
- Homogeneity throughout the entire surface and thickness of the blanket leading to consistency in performances per square area of material installed
- Water-repellent version available

Benefits

- Dimensionally stable over time up to the maximum using temperature
- Helps to control energy efficiency and heat flow very precisely
- Easy to cut and with proven installation techniques
- Roll format allows fast installation, saving time
- Allows freedom in engineering at the design stage
- Increases effective volume inner capacity or reduces encumbrance in equipment, pipes and apparels of various nature having curved or irregular surface and geometry.
- Large size allowing faster installation time
- Addresses Corrosion Under Insulation concerns
- Environmentally friendly

Application

WDS MultiRoll microporous insulation is specifically designed to allow faster and easier installation on piping systems or to over large surface.

- Process and transfer pipes and pipelines
- Insulation of turbines
- Ducting
- Any equipment and apparatus with curved or irregular surfaces

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Physical, Thermal and Chemical Properties

	Test Method	WDS MultiRoll Plus	WDS MultiRoll Plus HY
Water Resistance		Hydrophilic	Hydrophobic
Surface Covering		E-Glass Cloth	
Classification Temperature, °C (°F)		1000 (1832)	1000 (1832)
Density, kg/m^3 (pcf), nominal		275 (17.1)	275 (17.1)
Cold Compressive strength, MPa (psi)	ASTM C 165	0.35 (50.7)	0.35 (50.7)
Linear Shrinkage, %, ASTM C365			
Full soak, 1000°C (1832°F), 24 hours	ASTM C365	<3.0	<3.0
One side exposed soak, 1000°C (1832°F), 12 hours		<0.6	<0.6
Thermal Conductivity, W/m•K (BTU•in/hr•ft^2•°F)			
200°C (392°F)	ASTM C 177	0.026 (0.180)	
400°C (752°F)		0.030 (0.208)	
600°C (1112°F)		0.034 (0.235)	
800°C (1472°F)		0.039 (0.270)	
Chemical Analysis, % weight basis after firing			
Silica, SiO_2		55 - 75	
Silicon Carbide, SiC		25 - 40	
Others		3 - 10	
Loss of Ignition, Dry condition		<2.5	

Shelf life

- Keep the product in dry conditions and in its original packaging.
- The material remain stable over time and has no aging effect.

Standard Dimensions and Quilting Options

Board Size, mm (in)	Thickness, mm (in)	Quilting Options, on demand
7500 x 500 (295.27 x 19.5)	6 (0.25)	2D: Semi-quilted (W) Stitching path options: 50 x 50mm (2 x 2in)
7000 x 500 (275.59 x 19.5)	8 (0.31)	
6000 x 500 (236.22 x 19.5)	10 (0.39)	
5000 x 500 (196.85 x 19.5)	10 (0.39)	