ITM-FiberMax®

Premium Polycrystalline (PCW) Mullite/Al_2O_3 Needled Blanket, Wool & Modules up to 1,600°C

ITM-FiberMax® 1,600°C **Blankets**
are high temperature, light weight and flexible products manufactured from polycrystalline mullite wool, that can be exposed to temperatures up to 1,600°C.
They contain no organic binders or other additives (no RCF fiber) which cause outgassing fumes or associated problems.
In addition to exhibiting excellent resistance to attach from most corrosive agents, ITM-FiberMax® products also resists oxidation and reduction. They are almost free from shot (unfiberized) particles. That makes it ideal for ITM-FiberMax® blanket, wool and modules to be used in environment where presence of shot is undesirable.
The blanket possesses outstanding handling strength and resiliency at elevated temperature afforded by its mineral composition and unique needling process to interlock wool in blanket.

Additional characteristics are:

- excellent thermal stability and thermal shock resistance
- excellent chemical stability
- excellent tensile strength
- low thermal conductivity
- low heat storage
- high heat reflectance
- excellent corrosion resistance
- excellent hot strength

ITM-FiberMax

MATERIAL PROPERTIES

		Bulk Wool		Blanket 1600/100	Blanket 1600/130	Blanket 1600/160	Blanket 1600/100-95	Blanket 1600/130-95
SiO_2	[%]	Al_2O_3+SIO_2≥99%		28	28	28	5	5
Al_2O_3	[%]	72		72	72	72	95	95
Classification temperature	[°C]	1650		1600	1600	1600	1600	1600
Max. Service Temperature - permanent	[°C]	1600		1600	1600	1600	1600	1600
Density	[kg/m³]	/		100	130	160	100	130
Thermal Conductivity	[W/mK]							
800°C				0,20	0,18	…..	0,20	0,18
1,200°C				0,42	0,36	…..	0,42	0,36
1,400°C				0,59	0,51	…..	0,59	0,51
Linear Shrinkage, 24h at	[%]							
1,200°C				0,0	0,0	…..	0,0	0,0
1,400°C				0,3	0,3	…..	1,4	1,4
1,500°C				0,7	0,7	…..	1,6	1,6
1,600°C				1,0	1,0	…..	2,3	2,3
1,700°C				…..	…..	…..		
Shrinkage of Thickness, 24h at	[%]							
1,600°C				15,0	9,0	…..	…..	…..

TYPES AVAILABLE

Blanket				**Blanket 1650/100**	**Blanket 1650/130**	**Blanket 1650/160**	**Blanket 1650/100-95**	**Blanket 1650/130-95**
Standard Dimension*	[mm]	roll: 3600 x 610; 7200 x 610					sheet: 1200 x 610	
Standard Thickness*	[mm]	12,5; 25					25	
Bulk Wool		Un-chopped	Chopped			Engineered		
Standard Packing	[kg]	Package: 10						

*Please ask for other sizes and dimensions

PCW MODULES 1,500°C – 1,600°C

	Al_2O_3	Density [kg/m³]	Thermal Conductivity [W/mK]	Thickness [mm]	Size [mm]	Type of Packaging	Comments
1,500°C modules	54%	200	0.28 W/mK (1,200°C)	100-350	300 x 300 and 300 x 600	Volume dependent	Customized production on request
1,550°C modules	61%	150	0.34 W/mK (1.200°C)				
1,600°C modules	72%	100-200	0.42-0.28 W/mK (1,200°C)				