

Soluble ceramic blanket



Biosoluble HT 1100 blanket is a typical alkaline earth silicate (AES) wool with CAS number: 329211-92-9. It is manufactured from pure raw materials and processed to offer excellent performance in high-temperature applications. In production process the mat of bulk wool is converted to blanket by needling process. The needles are pushed into the mat and withdrawn which produces a coherent blanket. Blanket can be folded, compressed and encapsulated to produce modules for example. Soluble ceramic offers an

alternative to traditional insulating solutions due to its high refractoriness and excellent non-wetting characteristics with molten aluminium or other metals.

Soluble HT blanket provides stability and resistance to chemical attack and processes gas with an exception of strong alkalis as NaOH, KOH and fluorine or phosphoric acids.

Soluble HT ceramic is unaffected by incidental spills of oil or water. Thermal and physical properties are restored after drying. Soluble HT blanket is ideally suited to many applications and is available

in a wide range of thicknesses and densities. It can be use up to 1200°C but the maximum operating temperature range depends on the specific application.

Properties and applications

The main features as the soluble HT blanket insulation can provide, are:

- No harmful for human health and is easy biodegradable.



- Low heat storage.
- Flexible and good mechanical strength.
- Good resistance to thermal shock
- Excellent thermal stability and insulating performance.

The soluble HT ceramic material has wide range of application in modern industry: furnace kiln, reformer and boiler lining, laboratory ovens, furnace door lining and seals, annealing furnace linings, casting mould wrap, stress - relieving blankets, reusable steam and gas turbine insulation, expansion joints packing, high temperature gaskets, fire protection equipment, acoustical insulation in high temperature conditions.

Packaging and storage

The soluble HT 1100 blanket is deliveries in rolls with width 610mm in three thicknesses: 13 / 25 / 50 mm. Densities available: 96, 128 and 160 kg/m³. Other sizes are available on customer request. The rolls are packaged in carton box and they length on roll depends of thicknesses and takes following quantity:

13mm length 14m, qty 8,54m²

25mm length 7,2m, qty 4,39m²

50mm length 3,6m, qty 2,2m²

The goods are delivery on wooden pallets with 16 cartons. The blanket should be storage inside, in dry and heating places.

The physical properties and technical parameters:

Blanket type	HT 1100 D	HT 1100 M	HT 1100 L
Classification temperature	1200°C		
Colour	pure white		
Density	160 kg/m ³	128 kg/m ³	96 kg/m ³
Tensile strengths	60 kPa	50 kPa	40 kPa
Shrinkage of heating after 24 hours at 1000°C	2,2%	2,2%	2,5%
Loss of ignitions 1000°C	during 2 hours, max 2,5%		
Thermal conductivity W/mK			
at 200°C	0,08	0,06	0,06
at 400°C	0,09	0,09	0,10
at 600°C	0,11	0,12	0,14
at 800°C	0,16	0,18	0,23
at 1000°C	0,22	0,26	0,36
Chemical composition %			
Silica SiO ₂	55-65		
Alumina Al ₂ O ₃	8-10		
Calcium oxide CaO	18-30		
Magnesium oxide MgO	5-15		
Organic content	max 2		