MINERAL FIBRE Galvanised Lagging Mattress 4000GLM

ADVANTAGES

Durable - Safe - Cost effective

- No organic binders – soft, flexible, vibration resistant and resilient even after heating
- Non combustible BS 476 part 4, ASTM C592-80, DIN 52275 part2
- Easy and safe to use. Non respirable. Non carcinogenic - European Carc. Cat. 0 (unclassified)

DESCRIPTION

Lancaster Mineral Fibre Galvanised Lagging Mattress comprises unbonded mineral fibres securely stitched to galvanised hexagonal wire mesh to form a mattress with excellent thermal insulation properties, making this product ideal for external insulation lagging and cladding applications in construction projects. The unbonded nature of the product means that no charring, off-gassing or embrittlement occurs due to degradation of organic binder, making the mattress especially suitable for external insulating of hot industrial plant.

CHEMICAL COMPOSITION

Lancaster Mineral Fibre Galvanised Lagging Mattress is manufactured from basaltic material, incorporating an addition of recycled fibres into the melt. An inherently low level of mineralogical calcite ($CaCO_3$) is maintained, which gives the product very good resistance to attack by acidic residues. Oxide composition is given below:

Silicon oxide	SiO_2	43-50%
Aluminium oxide	Al_2O_3	11-18%
Iron oxide	Fe_2O_3	10-15%
Calcium oxide	CaO	10-14%
Magnesium oxide	MgO	8-14%
Sodium oxide	Na_2O	2-5%
Potassium oxide	K_2O	0.5-3%
Titanium oxide	Tio_2	2-4.5%
Residual mineralogy as $CaCO_3$		0-0.05%

PHYSICAL CHARACTERISTICS

Mean Filament Diameter (typical): 12um

Minimum Filament Diameter
(as LWGM –2 standard errors): >6um
Mean Filament Length: 80mm

Classification
(EU Directive 97/69EC) Unclassified

Standard Density: 100 kg/m3 (6.25pcf)
High Density: 128kg/m3 (8pcf)

Working temp at 80% Tmax: 600ºC (1110ºF)
Maximum working temperature: 750ºC (1380ºF)

THERMAL CONDUCTIVITY

Mean Temperature (ºC)	**10**	**50**	**100**	**150**	**200**	**250**	**300**	**350**	**400**
Mean Temperature (ºF)	**50**	**132**	**212**	**300**	**390**	**480**	**570**	**660**	**750**
'K' value (W/mk) 100kg/m3	**0.037**	**0.039**	**0.045**	**0.052**	**0.063**	**0.077**	**0.090**	**0.108**	**0.130**
'K' value (W/mk) 128kg/m3	**0.036**	**0.037**	**0.042**	**0.048**	**0.058**	**0.071**	**0.083**	**0.099**	**0.119**

AREAS OF APPLICATION

Lancaster Mineral Fibre Galvanised Lagging Mattress is especially suitable for the external insulation of plant and equipment in the following industries:

- Power generation.
- Petroleum refining.
- Chemical processing.
- Paper making.

HEALTH AND SAFETY

Lancaster Mineral Fibre Galvanised Lagging Mattress achieves the lowest possible risk rating under the EU categorisation of Man Made Vitreous Fibre (potential for carcinogenicity). Full MSDS data will be given on request.

OTHER MATERIALS

For internal insulation applications in hot gas ducts, silencers and boilers, the Company manufactures GTB® thermal acoustic fibrous basalt materials, the international "benchmark" for gas turbine silencing.