

Data sheet

Superwool® Pyro-Bloc

ENGLISH

Metric information - Page 2
Imperial information - Page 3

Description

Superwool® Plus Pyro-Bloc and Superwool® HT Pyro-Bloc® modules comprise of two sections of Superwool® Pyro-Log® slab edge-grain orientation. These are held in position with two stainless steel tubes mounted transversely through the modules and remote from the hot face. They are anchored to the furnace casing with the patented Pyro-Bloc® fixing in any one of four standard versions, Y, M, T and Eye-bolt.

In the Y module, the tubes are connected with a central, internal yoke which includes a stainless steel stud and aluminium extension tube. This version is installed directly onto a metal plate casing, without pre-welding, using the special Pyro-Bloc® stud gun. It offers the fastest installation rates of any currently available modules.

The M module also includes the central yoke, but is fitted onto pre-welded studs using the special M modules stud locating equipment.

The T module is anchored with a pre-studded, external, side-fix yoke.

M and T modules are used where the lining specification calls for either or both a backing blanket and anticorrosion treatment of the casing.

The Eye-bolt version is used for fastening the modules to expanded or perforated metal casings and can also accommodate a backing blanket.

Type

Mechanically-fixed modules made from high temperature insulation wool.

Classification temperature

Superwool® Plus Pyro-Bloc: 1200°C (EN 1094-1)

Superwool® HT Pyro-Bloc: 1300°C (EN 1094-1)

The maximum continuous use temperature depends on the application. Unaffected by most chemicals except strong alkalis, phosphoric acid and molybdenum. For further advise please contact your local Morgan Thermal Ceramics partner.

Benefits

- High un-compressed densities give low thermal conductivity
- Lubricated fibre allows increased compression and tight joints
- Hardening effect on first firing gives a tough hot face
- Resistance to weathering permits limited outside application
- Anchorage remote from the hot face protects steel work

Special Shapes

The Pyro-Bloc® system allows for modifications, either on site or factory pre-cut, without any directional limitation, to accommodate awkward casing configurations. L-shaped corner modules provide quick joint-free installation around both internal and external corners, with no need for extra supporting metal work. Half-round cut-away allows fitting to round sections.



SDS:
EU: 138/144
NA: 350
GHS: n/a

Data sheet

Metric information

Superwool® Pyro-Bloc

	Superwool Plus Pyro-Bloc modules		Superwool HT Pyro-Bloc modules		
Classification temperature, °C	1200		1300		
Colour	white		white		
Specific heat capacity, kJ/kg.K	160	192	160	192	240
Loss on ignition, % after 2 hours heating @800°C	<0.25		< 0.25		
Permanent linear shrinkage, ENV 1094-1 after 24 hours isothermal heating, % @ 1000°C	< 1.5		-		
after 100 hours isothermal heating, % @ 1000°C	-		0.20		
@ 1100°C	-		0.50		
@ 1200°C	-		0.80		
Specific heat capacity, kJ/kg.K @ 1090°C	1.05		1.22		
Thermal conductivity, ASTM C-201, W/m K @ 200°C	-	-	0.07	0.07	0.07
@ 400°C	0.11	0.09	0.14	0.12	0.10
@ 600°C	0.17	0.15	0.21	0.17	0.15
@ 800°C	0.24	0.21	0.30	0.25	0.22
@ 1000°C	0.32	0.28	0.40	0.33	0.29
@ 1200°C	-	-	0.54	0.44	0.39

Availability and Packaging

Pyro-Blocs are normally supplied as 305mm square and of thicknesses ranging from 100mm to 350mm, in 25mm increments.

Other sizes, shapes and densities, including L-shaped modules can be made available on request.

Superwool® Plus & HT Pyro-Blocs are delivered packed either in cartons 315mm square x 930mm long or on palletted jumbo cartons, 1250mm x 1100mm x 1100mm high (including pallet).

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SUPERWOOL® is a patented technology for high temperature insulation wools which have been developed to have a low bio persistence (information upon request). **SUPERWOOL®** products may be covered by one or more of the following patents, or their foreign equivalents:

SUPERWOOL® PLUS and **SUPERWOOL® HT** products are covered by patent numbers: US5714421 and US7470641, US7651965, US7875566, EP1544177 and EP1725503 respectively.

A list of foreign patent numbers is available upon request to Morgan Advanced Materials plc.

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Data sheet

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Imperial information

Module Thickness, inch (mm)	12 x 12 Module	12 x 6 Module
	Modules per carton	
3 (76)	12	24
4 (102)	9	18
5 (124)	7	14
6 (152)	6	12
7 (178)	5	10
8 (203)	6	12
9 (229)	4	8
10 (254)	3	6
11 (279)	3	6
12 (305)	3	6

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