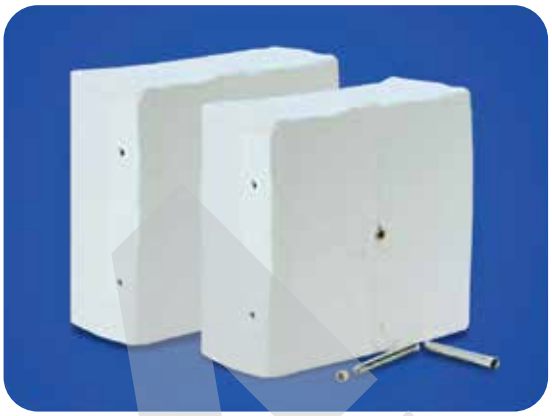
Superwool® Plus Pyro-Bloc® Module
Superwool® HT Pyro-Bloc® Module

Material Type: Mechanically-fixed soluble fibre modules.



Description

Both products are produced in modular form by use of Superwool® Plus Pyro-Log and Superwool® HT Pyro-Log slabs patented by Thermal Ceramics, respectively.

Modules are held in position with two stainless steel tubes. The most distinguishing characteristic of the products is the hardening effect on first firing which gives a though hot face. Thus, they have higher mechanical resistance against flame impacts compare to standard Z-Blok applications.

Specially designed for easy and quick installation, the modules are offered with four different anchor types depending on the requirements of the application.

Y Module: 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.

M Module: Similar to Y Module, the M module also includes the central yoke, but is fitted onto pre-welded studs using the special M modules stud locating equipment.

T Module: Similar to M Module, 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.

Eye-Bolt Module: The Eye-Bolt version is used for fastening the modules to expand or perforate metal casings and can also accommodate a backing blanket.

Classification Temperature

Superwool® Plus Pyro-Bloc® Module : 1200 °C
Superwool® HT Pyro-Bloc® Module : 1300 °C

The maximum use temperature depends on the application. Refer to our company for advice.

Features

- Quick and easy to apply.
- High un-compressed densities give low thermal conductivity.
- Lubricated fibres allow increased compression and tight joints.
- Resistance to the mechanical destruction during operation and against wear by the gas output.
- Lightweight.
- Very low heat storage.
- Allows for modifications, either on site or factory pre-cut, without any directional limitation, to accommodate awkward casing configurations.
- High mechanical resistance developed after the first firing.
- L shaped corner modules provide quick joint-free installation around both internal and external corners, with no need for extra supporting metalwork. Half-round cut-away allows fitting to round sections.

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Main Properties (23 °C / 50% Humidity)	Superwool® Plus Pyro-Bloc® Module		Superwool® HT Pyro-Bloc® Module		
Colour	White				
Classification Temperature, °C	1200		1300		
Density, kg/m³	160-192		160-192-240		
Behaviour at High Temperature Loss on Ignition, % (after 2h at 800 °C)	<0,25				
*Permanent Linear Shrinkage, %					
1000 °C	<1,5		0,2		
1100 °C	-		0,5		
1200 °C	-		0,8		
Thermal Conductivity, W/m.K	160 kg/m³	192 kg/m³	160 kg/m³	192 kg/m³	240 kg/m³
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	0.24	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
Specific Heat Capacity at 1090 °C, kJ/kg.K	1.05		1.22		

*At the temperatures for which values are given, the isothermal heating time is considered as 24 hours for Plus Module and 100 hours for HT Module.

Applications

- Iron-steel industry.
- Nonferrous industry.
- Petrochemical industry.
- Brick baking furnaces.
- Waste heat recovery.
- Insulation applications which require thermal shock resistance.

Product Components

Unless otherwise stated, ASTM 316 grade stainless steel is preferred for the connection tube and yokes and ASTM 310 or Inconel 601 grade anchors may also be used depending on the furnace type and place of application. And ASTM 304 is used for the anchor bolts and, furthermore, the stainless steels of higher grade are also preferred depending on the place of application and conditions.

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 Pyro-Blocs® are delivered packed either in cartons 315x315x930mm or on palleted jumbo cartons, 1250x1100x1100mm high (including pallet).

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