

QPLaS Insulation

Description

The insulation we use in the blocks and pipe shoes is moulded from a high strength glass reinforced composite and is referred to as QPLaS.

The QPLaS material has a number of advantages over other materials such as steel and wood, in that no maintenance is required after installation, as it requires no painting or special coatings. The QPLaS material absorbs no moisture and suffers no corrosive effects. The versatility of this material means that it can be machined, bored and tapped so that it can incorporate steel supports and fixings. QPLaS is also extremely safe as it has excellent fire safety properties and is classified as "Not easily ignitable"

Material Benefits

- + Applicable for any climates & conditions
- + High strength in all directions
- + Robust and durable
- + Thermal and electrical insulator
- + Dimensionally stable
- + Fire retardant
- + Corrosion free
- + Resistant to UV and chemical attack
- + Non-hazardous
- + Wide temperature range
- + Maintenance free
- + No significant moisture absorption
- + No protective coating required
- + Life expectancy in excess of 30 years

QPLaS Technical Data

- + Compressive strength 20oC (Mpa)
- + Compressive strength 1000 oC (Mpa)
- + Compressive strength 150oC (Mpa)
- + Tensile strength 20oC
- + Shear strength 20oC
- + Flexural strength 20oC
- + Density (g/cm³)
- + Thermal conductivity (W/m K) @ 20oC
- + Impact strength 20oC
- + Electrical strength MV/m
- + Volume resistivity Twm
- + Surface resistivity TW
- + Upper operating temperature (oC)
- + Lower operating temperature (oC)

Insulation Options

In addition to QPLAS material, we also supply a large range of insulating pipe supports to suit a large range of temperatures, from cryogenic pipe work to high temperature pipes and vessels.

Cellular Glass

A highly efficient impermeable insulation material. It is totally inert and non combustible and is suited to severe cryogenic temperature cycles.

Low Density & High Density Polyurethane Foam

This is CFC free foam with good load carrying capabilities and a large temperature range, used in oil and petrochemical industries where a high efficiency of insulation is required. The material also has excellent fire retardant properties

QPLaS

A high strength glass reinforced composite, which has a wide temperature range and can be machined, bored and tapped. It has excellent fire safety properties and is resistant to UV and chemical corrosion

Phenolic

This is a CFC free high density foam with a large temperature range is, fire resistant and has an extremely low smoke emission. It is also treated with dust suppressant, which makes it suitable for pharmaceutical, food processing, medical and other clean air environments.

Material Specifications				
Material	Density	Comp Strength	Thermal Conductivity	Temp Range
Cellular Glass	165 kg/m ³	1.6 Mpa	0.047 (W/m K) @ +10°C	-260°C to +430°C
Low Density Polyurethane	50 kg/m ³	0.26 Mpa	0.027 (W/m K) @ -160°C	-120°C to +140°C
High Density Polyurethane	400 kg/m ³	7 Mpa	0.028 (W/m K) @ -160°C	-200°C to +80°C
Low Density Calcium Silicate	260 kg/m ³	1.5 Mpa	0.058 (W/m K) @ +200°C	0°C to +1000°C
High Density Calcium Silicate	770 kg/m ³	11 Mpa	0.18 (W/m K) @ +200°C	0°C to +500°C
QPLAS	1850 kg/m ³	140 Mpa	0.35 (W/m K) @ +20°C	-190°C to +160°C
Phenolic	60 to 160 kg/m ³	0.4 to 2.3 Mpa	0.028 to 0.036 (W/m K) @ +10°C	-180°C to +120°C