

## **Flexalen Pre-Insulated Pipes**

### GENERAL SPECIFICATION FOR PRE-INSULATED PIPEWORK FOR HEATING, HOT WATER & CHILLED WATER SYSTEMS

The below ground pre insulated pipework pipe shall be as Flexalen Pre-Insulated Pipe System

Available from **Flexenergy UK Ltd. (Tel. 0845 644 3793 Fax. 0845 644 3893)**

**The internal carrier pipe system shall be Polybutene (PB-1) material only.**

Polybutene technical detail

Temperature range	-15 to +95°C	Density	0.940 g/m <sup>3</sup>
Melt index	0.4 g/10min	Stretch tension	20 N/mm <sup>2</sup>
Tearing Strength	35 N/mm <sup>2</sup>	E-Module	420 N/mm <sup>2</sup>
Expansion Coefficient	0.13mm/mK	λ value	0.16W/mK

**The outer casing shall be black Polyethylene (HDPE).**

Polyethylene Casing technical detail

Stretch tension	22 N/mm <sup>2</sup>	Tearing Strength	32 N/mm <sup>2</sup>
Expansion Coefficient	0.18mm/mK	λ value	0.16W/mK

**The insulation for carrier pipe sizes 25mm to 125mm shall be polyethylene.**

Continuously in line extruded polyethylene foam surround, fusion bonded to the outer casing.

Polyethylene Insulation technical detail

Closed cell		Volume weight	30 – 40 kg/m <sup>3</sup>
Temperature range	-80 to +95°C	λ value	0.031W/mK

**The insulation for carrier pipe sizes 140mm to 225mm shall be Polyurethane**

Continuously foamed 6 or 12 mtr lengths

Polyethylene Insulation technical detail

Closed cells	94%	Volume weight	50 – 80 kg/m <sup>3</sup>
Temperature range	-40 to +110°C	λ value	0.033W/mK



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### **Jointing**

Jointing methods shall be either.....

- Automatic electrofusion for pipes (25 – 110mm)
- Butt Fusion for pipes (110mm – 225mm)

### **Mechanical joints are not permitted below ground.**

Suitable transitions shall be provided for the change of material above ground.

### **Warning tapes**

All warning tapes shall be detectable 2 wire (stainless steel), placed approximately 300mm above the pipes and state "Warning heat main below"

### **Valve chambers**

Valve chambers shall be rapid stack with modular sections, bolted together in the corners and interlock to form the complete chamber.

Chambers to be drilled on site for duct and service entries and conform to manual handling regulations

Chambers to be independently tested to the vertical load requirements of BS EN124:1994 B125, D4000 & E600

### **FURTHER INFORMATION.....**

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### **Flexalen pipe specification. Revision 3: September 2010**

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