

## USL - Polybutylene Pipe

**Data Sheet 9  
Polybutylene pipe**

USL Polybutylene pipe is a 5 layer EVOH barrier pipe which conforms fully to the exacting standards of **BS 7291 Part 1 Class S** and carries a full 50 year manufacturer's warranty.

The excellent features of the main polymer, has allowed USL Polybutylene pipe to be used successfully with Underfloor Heating and Cooling projects over many years.

**USL Polybutylene pipe has the following benefits:**

- High flexibility especially at low temperatures.
- High abrasion resistance.
- Resistance to cracking
- High resistance to stresses combined with temperature and pressure particularly at high temperatures.
- Resistance to chemical agents
- **The ability to recycle**, a factor that must not be disregarded.

**Technical and Performance Data**

Dimensional Features of USL Polybutylene Pipe				
Pipe Diameter	Internal Diameter	Weight	Water Content	Minimum Bend Radius
16mm	14mm	104 (g/m)	0.110 (l/m)	5 x Pipe Diameter

Physical Properties	ASTM Method	Unit of Measure	Value
Melt Flow Rate	D1238	g/10 min	0.4
Colour			Grey
Density	D1505	g/cm <sup>3</sup>	0.937
Dielectric Constant	D150-65T		2.50

Mechanical Properties	ASTM Method	Unit of Measure	Value
Yield Point	D638	MPa	17.6
Tensile Strength	D638	MPa	33.4
Breaking Elongation	D638	%	280%
Elastic Module	D638	MPa	265
Shore Hardness	D2240	D scale	D60
Embrittlement Temp	D746	°C	-21

Thermal Properties	ASTM Method	Unit of Measure	Value
Fusion Point	DTA	°C	124-126
Vicat Softening Point	D1525	°C	113
Thermal Expansion	D696	Mm/(m°C)	0.13
Thermal Conductivity	C177	W(m°C)	0.22
Latent Melting Heat	DSC	kJ/kg	100