Vulcathene Material Properties

Manufactured from co-polymer polypropylene with 3% carbon black ultra-violet stabiliser. Vulcathene has very high resistance to chemical attack and is well suited to the conveyance of aggressive chemicals, and other liquids as used in chemical plants and laboratory waste.

The performance specification is based on the need to supply a waste system which has a high chemical resistance rating in respect of the corrosive materials which it has to convey. Good tensile strength, ductility, abrasion resistance, high impact strength, weather resistance, and is stable over the range of temperatures normally encountered in the environment in which it is used.

Vulcathene is resistant to many concentrated acids and alkalis and some organic solvents. Vulcathene also has a good abrasion resistance throughout its operational temperature range of between -20°C and +100°C.

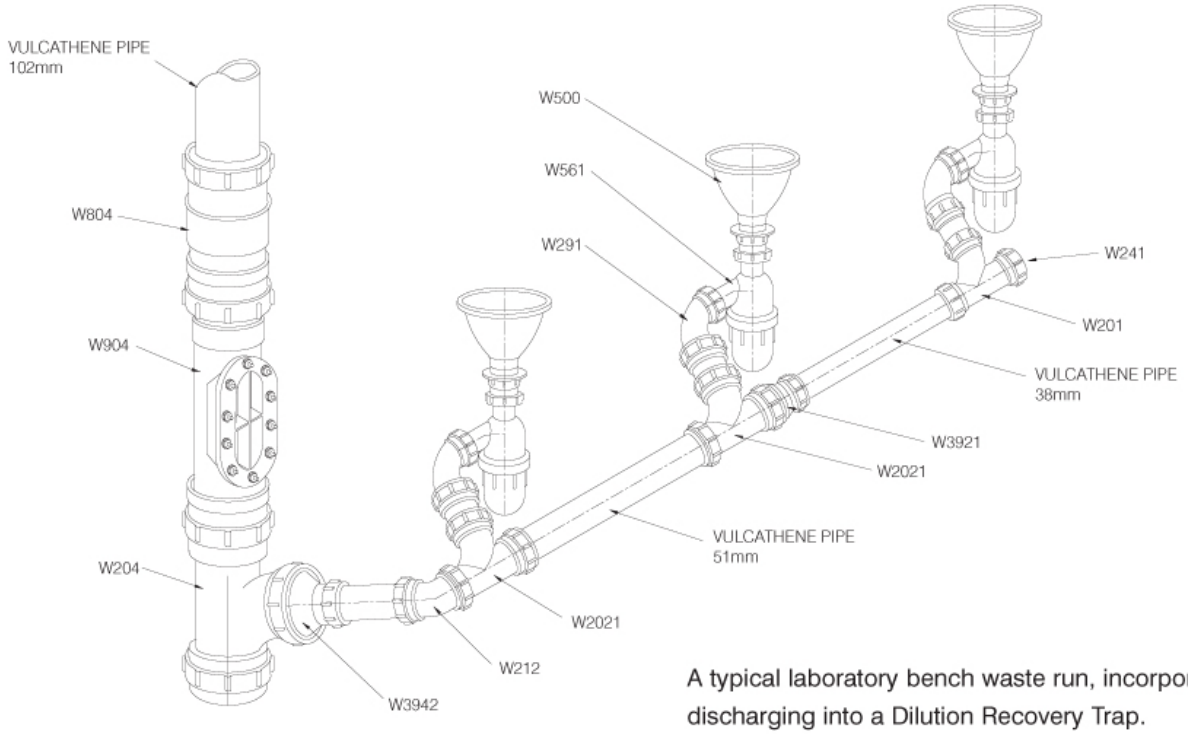
With a smooth bore, it is lightweight with a specific gravity of 0.905. It has high impact strength, which minimises damage during and after installation.

The full specification to which Vulcathene pipe and fittings are manufactured is detailed below.

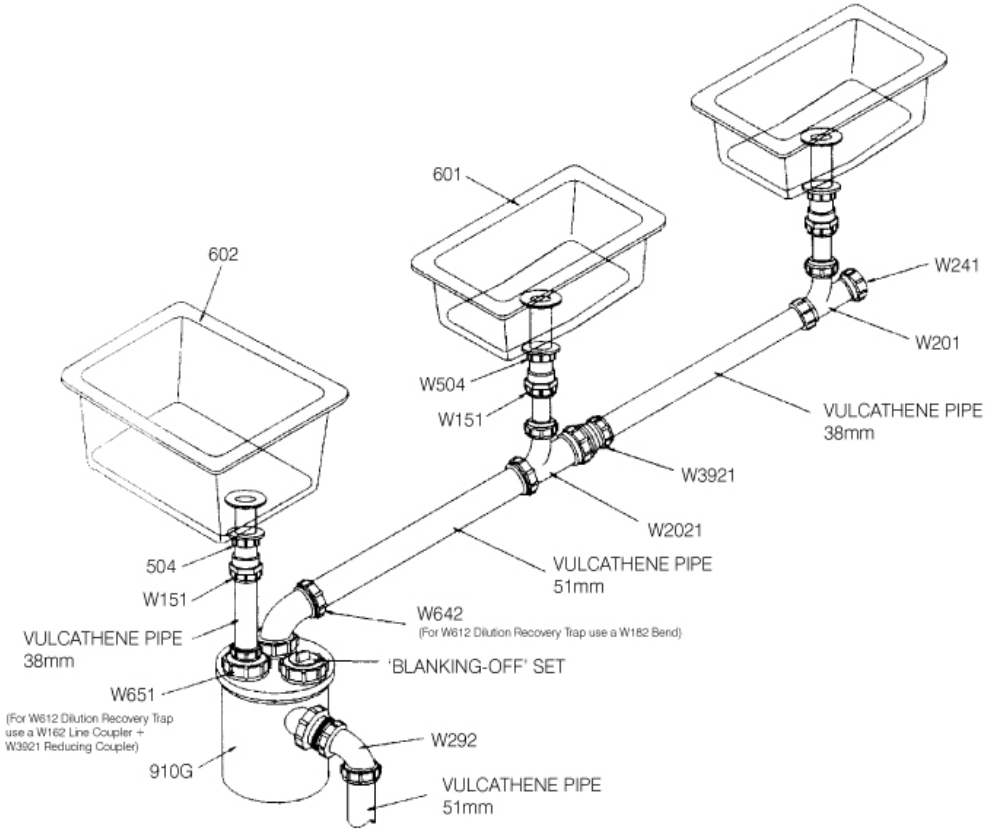
Property	Test Method	Unit		
Melt flow index (MFI)	230°C/2.16 kg	Granules		6.5
Density (mean)		kg/m^3		9.5
Tensile yield stress	ISO 527 ASTM D 638M (50mm/min)	MPa kg/cm^2		27.0 295
Flexural modulus	ISO 178 ASTM D 790	GPa kg/cm^2		1.15 14100
Izod impact strength	ISO 180 (0.25mm notch radius)	kj/m^2	23°C 0°C -20°C -40°C	7.0 4.5 3.0 -
Rockwell hardness	ISO 2039/2, ASTM D 785	R scale		90
Vicat softening temperature (10 N force)	ISO 306A BS 2782; 102 A	°C		147
Heat distortion temperature A - 1.8 MPa (18.6kg/cm^2) B - 0.45 MPa (4.6kg/cm^2)	ISO 75/A and /B ASTM D 648-A-B	°C °C		55 90
Flammability	ISO 3795 FMVSS 302 (2mm thickness)	 Burning rate mm/min		 38

Mechanical Drainage Design

A typical laboratory bench waste run, incorporating drip cups discharging into bottle traps and then into a Vulcathene stack.



A typical laboratory bench waste run, incorporating sinks discharging into a Dilution Recovery Trap.



Enfusion Drainage Design

A typical laboratory bench waste run, incorporating drip cups discharging into bottle traps and then into a Vulcathene stack.

