

# Rural PLUS®



Rural PLUS® polyethylene pipe from Vinidex is specially designed for rural applications. Rural PLUS® Polyethylene pipe is available in diameters ranging from ¾" (19mm) to 2" (50mm) and can be used at pressures up to 900kPa (PN9) at 20°C.

Rural PLUS® polyethylene pipes are supplied in a range of convenient coil lengths and can be recognised by the wide green stripes on the pipe outside surface.

Together with Philmac Rural Fittings, Vinidex Rural PLUS® pipe provides a complete piping system for all rural applications such as water reticulation, irrigation and stock watering.

## Why choose Vinidex Rural PLUS®?

### Vinidex Quality

Vinidex is Australia's leading manufacturer and supplier of thermoplastics pipes and fittings systems. Founded in 1960, the company has always used the highest quality raw materials and most up-to-date manufacturing technologies and is now regarded as one of the most technically advanced manufacturers in the field.

Vinidex is committed to quality and is a Quality Endorsed Company, accredited with ISO9001 license number QEC 570.

### Ease of Installation

Rural PLUS® polyethylene pipes are easy to install with their light weight and long lengths. Buried pipes can be installed in a trench or using "ploughing in" techniques.

### Flexibility

The inherent flexibility of polyethylene allows Rural PLUS® polyethylene pipe to be laid to follow natural earth contours or bend around obstacles. The pipe will also withstand normal earth movement.

### High Impact Strength

The high impact strength of Rural PLUS® polyethylene pipes ensures resistance to the rigors of pipe laying conditions. Polyethylene pipe will not become brittle, even at low temperatures.

### High Flow Capacity

Rural PLUS® polyethylene pipes maintain a smooth internal bore over the working lifetime of the pipeline. The surface energy characteristics of polyethylene inhibit the build-up of deposits on the internal pipe surfaces thereby retaining the maximum bore dimensions and flow capacities.

### Weathering Resistance

Rural PLUS® polyethylene pipes are stabilised against ultra violet (UV) light degradation by the inclusion of carbon black in the material and are suitable for above ground installations where the pipes are exposed to direct sunlight.

## Application and Installation

### Transport and Storage

Rural PLUS® polyethylene pipes are tough, flexible and easy to handle. While they are robust and resistant to site damage, normal care and sensible handling practices which avoid surface damage are necessary to ensure trouble free operation.

Coils should be transported with the coils flat and evenly stacked on top of each other. Where coils are stacked vertically, the stacks should be restrained to prevent the bottom section of the coils from being flattened.

Pipes should be stored in an area that is flat and does not have any sharp objects or projections which may cause damage or distortion to the pipes.

### Temperature

The recommended maximum continuous service temperature for Vinidex Rural PLUS® pipes is up to 45 degrees, for a life greater than 25 years. For applications involving elevated temperatures above 20 degrees, please refer to the table below.

Max Temp Service Fluid (°C)	20	25	30	35	40	45
Max Pressure (kPa)	900	855	810	774	729	675
Max Service Life (yrs)	50	50	50	50	50	35

### Expansion and Contraction

PE pipe will expand and contract by approximately 200mm for every 100m of pipe over a 10°C change in pipe temperature. For below ground installations, no allowance for expansion is required provided the connection system has stabilised to service temperature before backfilling. For above ground installations, thermal contraction is allowed for by 'snaking' the pipe.

### Air Valves

All water contains dissolved air. Normally this would be about 2% but it can vary largely depending on temperature and pressure. Air trapped in the line in pockets is continually moving in and out of solution. Air in the line not only reduces the flow by causing a restriction but amplifies the effects of pressure surges.

Air valves should be placed in the line at sufficient intervals so that the air can be evacuated, or, if the line is drained, air can enter the line.

Air valves should be placed along the pipeline at all high points or significant changes in grade. On long rising grades or flat runs where there are no significant high points or grade changes, air valves should be placed at least every 500 - 1,000 metres at the engineer's discretion.

### Fittings

A range of Philmac Rural Fittings are available from Vinidex in sizes from 16mm (1/2") to 50mm (2").

- Couplings for jointing, reduction and repair
- 90° and 45° elbows - also with male or female BSP threaded outlets.
- 90° tees and reducing tees - also with male or female BSP threaded outlets.
- End plugs for sealing off pipelines.
- Male and female BSP threaded adaptor fittings.
- Imperial to metric conversion kit.

The Vinidex range of Philmac Rural fittings is made from high impact resistant polypropylene material. Philmac Rural Fittings have the strength and durability to provide a 50+ year service life and are backed by a 20 year warranty.

Vinidex Code	Size (inch)	Length (m)	Outside Diameter (mm)	Wall Thickness Min (mm)	Mean Inside Diameter (mm)	Minimum Quantity
22580	¾"	200	22.4	1.4	19	1
22640	1"	200	28.9	1.6	25.3	1
22700	1 ¼"	150	36.0	1.9	31.6	2
22710	1 ¼"	300	36.0	1.9	31.6	2
22760	1 ½"	150	43.2	2.3	38.0	2
22780	1 ½"	300	43.2	2.3	38.0	2
22830	2"	100	57.6	3.1	50.8	2
22840	2"	200	57.6	3.1	50.8	1

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