TopRail® Post & Rail Fencing

Product description	The fence system consists of 3010mm long (standard length) secured to the posts with a special bracket and fastenings.
System function	To act as a physical barrier and give a decorative aspect similar to a traditional timber post and rail fencing.
Product application	Sports ovals, open space areas, estates, retirement homes, residential property, hobby farms, and horse studs.
Fence height	1200mm (standard).
Post spacing	3105mm post centres standard (assumes a 65x65mm post). 3030mm gap between posts (standard).
Rails	115x42x2mm Oval Hollow Rail x 3010mm long
Panel brackets	Bluedog SmartaBracket® to suit 115x42mm oval rail. 3mm gauge mild steel material, 1-piece heavy duty, (two brackets per rail). Three fixing points to the post and two to the rail. To suit a 75x75 post fitting to the non-attack side (normally the inside) of the fence. This bracket centres the rail on the post and encloses the rail. The bracket can accommodate a change in gradient to about 10 degrees. The bracket is hot dip galvanised after fabrication and then powder coated.
Fasteners	Colour matched 12 gauge self-drilling tek screw; or *Recommended alternative for heavier duty applications*: 12g x 25mm long tamper proof self drilling Tek screw in a Class 3 (minimum) corrosion finish. Requires a special setting tool that fits to a drill to install and remove the screw.
Intermediate posts	75x75x3mm SHS (1800mm long for 1200mm high panel).
In ground post footings	Fence posts Ø300mm x 550mm deep using 20mpa concrete for 1200mm high fencing*. **adequacy subject to the soil conditions, fence height and potential loadings.*
Post cap	Bluedog pregalvanised steel cap (powder coated).
Tubular pre-galvanised material	Mild steel. Strength grade: C250 minimum. Zinc coating inside and out with 50 grams/ square metre minimum. *Recommended*: Orrcon Mild Steel Galvabond® Electric Resistance Welded (ERW) precision tubing with 135 grams/ square metre zinc coating mass (minimum) for increased corrosion resistance.
Metal pretreatment process	The product undergoes a 7 stage chemical pretreatment process to clean, etch and prepare the metal surface for powder application. This process includes first submerging the product in two consecutive heated alkali degreasing baths, then a series of rinse baths and then a nanoceramic conversion coating bath that places a fine crystalline structure on the surface of the steel for the powder to 'key' into and prevent oxidisation on the surface before powder coating. This facilitates improved powder film adhesion.
Powder coat process	The product is powder coated using an automated conveyorised powder coating line. Powder is applied to the metal surface using air pressure and an electrostatic charge. The product then passes through a heated curing oven. This causes the powder to gel and then harden to a tough durable surface. The thickness and curing times are closely monitored as these variables influence the mechanical characteristics of the finished coating.
Powder coat for standard outdoor applications	For standard outdoor application D1000 Excel™ polyester powder is used as standard. All powders used are supplied by Interpon and formulated by Akzo Nobel. Interpon D1000 exhibits a tougher cured film which provides superior damage resistance to packaging materials. It is designed to give excellent long term exterior durability and

	colour retention and is available in a limited range of colours and in gloss, satin and matt finishes. Film thickness: ~80µm minimum.
Powder coat for applications at risk of graffiti	For applications at risk of graffiti, EasyClean™ can be used as an alternative to the standard polyester coating. EasyClean is a Polyurethane coating that is designed to allow the simple and rapid removal of most forms of graffiti. This ease of graffiti removal reduces overall maintenance costs. Interpon Typical applications include fence installations at train, tram and bus stations, schools and playgrounds. Film thickness: ~80µm minimum.
Powder coat for higher corrosion environments	For applications that will be subject to higher corrosion, a zinc-rich epoxy primer can be applied under the top coat of polyester to give much greater corrosion resistance. The epoxy primer provides a non-porous barrier between the corrosive elements (salt, pollutants etc.) and the metal surface. Alternatively, the product can be hot dip galvanised after fabrication. This involves immersing the product in a bath of molten zinc. This applies a heavy coating of continuous protective zinc over all surfaces (internal and external).
Applicable Australian Standards	AS 1450 – Steel tubes for mechanical purposes - Product Designation AS 1450/C250/ERW. AS 1397 – Steel sheet and strip – Hot-dip zinc-coated or alu/zinc coated - Product Designation AS 1397/G2. AS 1163 – Structural steel hollow sections – Product Designation AS 1163 C350LO. AS/NZS 4680:2006 – Hot dip galvanized (zinc) coatings on fabricated ferrous articles. AS 4506.2005 Metal finishing - Thermoset powder coatings.
Reference material	Bluedog drawing set. Bluedog installation guide.