

ENERGY & COMMUNICATIONS SPECIFICATION AND INSTALLATION GUIDE







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Iplex Volta™ PVC-U Rigid Electrical Conduit & Duct

lplex Volta[™] rigid electrical conduit is a heavy duty electrical conduit suitable for above and below ground. Iplex Volta[™] electrical duct is suitable for below ground

- Conduit available from 20mm to 50mm (nominal OD sizes)
- Duct available from 80mm to 150mm
- AS/NZS 61386.21
- Bureau Veritas S-Mark Licence



Iplex 2700 Series PVC-U Rigid Electrical Duct

2700 series duct is suitable for below ground applications.

- Available from 32mm to 150mm
- Available in LD and HD
- AS/N7S 2053.2



Iplex PVC-U Electrical Bends and Fittings

Coloured orange for below ground applications

3

 Available in sizes from 50mm to 100mm



Iplex PE-100 Flexible Electrical Duct

Iplex PE duct is designed for trenchless applications.

- Available from 32mm to 160mm
- Conforms dimensionally to
 AS/NZS 4130

COMMUNICATIONS - SECTION 2						
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Iplex PVC-U Rigid Communications Duct

Iplex PE duct is designed for cable protection for trenched installation.

• Chorus and Non-Chorus offers



Iplex PE Flexible Communications Duct

Iplex PE duct can be used in both trenchless and trenched applications.

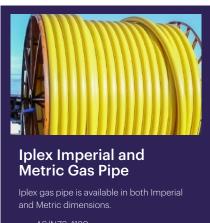
- Conforms dimensionally to AS/NZS 4130
- Chorus and Non-Chorus branded offers



Iplex PE and PVC-U Bends and Fittings

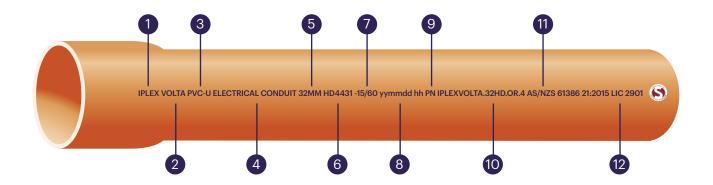
- PVC-U and PE fittings options
- Chorus and Non-Chorus bends and fittings

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- AS/NZS 413
- Available from 25mm to 160mm (metric), or 10mm to 150mm (imperial)
- Coiled, straight length and drum coil offerings.

UNDERSTANDING PIPE CODES - EXAMPLE



- 1 Company Name
- 2 Brand Name
- 3 Material Type
- 4 Application
- **5** Nominal Diameter
- 6 Duty Classification

- 7 Service Temperature Range
- 8 Date and Hour of Manufacture
- 9 Location of Manufacture (PN = Palmerston North)
- 10 Order Code
- 11 Manufacturing Standard
- 12 3rd Party Certification Licence
- 13 3rd Party Certification Body Logo

ELECTRICAL

IPLEX VOLTA™ PVC-U RIGID ELECTRICAL CONDUIT

Iplex Volta™ PVC-U rigid electrical conduit is manufactured in New Zealand to AS / NZS 61386.21 "Conduit systems for cable management Part 21: Particular requirements – Rigid Conduit Systems".

Iplex Volta™ PVC-U Rigid Electrical Conduits are available in diameters ranging from 20mm to 50mm in 4m socketed lengths, suitable for solvent cement jointing.

STANDARDS COMPLIANCE

Coloured orange or grey, Iplex Volta rigid electrical conduit is available in nominal OD diameters ranging from 20 to 50mm in Heavy Duty classification manufactured to AS/NZS 61386.21. (Bureau Veritas S-Mark Licence 2901).

Iplex Volta™ PVC-U Heavy Duty Rigid Electrical Conduit (Grey)

Grey coloured Iplex Volta™ electrical conduit, is suitable for exposed above-ground applications, or for photovoltaic (PV) panel installations and meets the standards required for photovoltaic (PV) arrays AS: NZS 5033. Grey coloured Iplex Volta™ electrical conduit is formulated for UV resistance compliant with AS/NZS 61386.1 and marked with the letter "T" and the word "SOLAR" indicating suitability for long term outdoor applications exposed to direct sunlight (AS/NZS 5033).

Duty Classification – HD4431 **Service temperature range:** -15°C to +60°C

Iplex Volta™ PVC-U Heavy Duty Rigid Electrical Conduit (Orange)

Orange coloured Iplex Volta™ electrical conduit is suitable for underground installation without further mechanical protection and offers high resistance to impact and compression.

Duty Classification – HD4431 **Service temperature range:** -15°C to +60°C

NB: If used unprotected from the sun above ground, orange colored Iplex Volta™ electrical conduit may have limited UV /weathering resistance and colour fading (whitening) with some loss of impact strength may occur over time.

IPLEX VOLTA™ PVC-U RIGID ELECTRICAL DUCT

Iplex Volta™ PVC-U rigid electrical ducts are manufactured in New Zealand to AS / NZS 61386.21 and are coloured orange. These ducts are intended for conventional open cut (trench) methods, to identify and protect contained underground electrical cables.

Iplex Volta™ PVC-U rigid electrical ducts are available in diameters ranging from 80mm to 150mm in 6m socketed lengths, suitable for solvent cement jointing.

Nominal internal diameters 80mm (MD3331 & HD4431 duty classifications), 100mm and 150mm (MD3331, HD4431 and VHD5531 duty classifications.) manufactured to AS/NZS 61386.21

Service temperature range: -15°C to +60°C.

Manufactured to AS/NZS 61386.21. (Bureau Veritas S-Mark Licence 2901).



Iplex Volta™ PVC-U Rigid Electrical Conduit

IPLEX 2700 SERIES PVC-U RIGID ELECTRICAL DUCT

Iplex 2700 series PVC-U rigid electrical ducts are manufactured in New Zealand to AS / NZS 2053.2. This product is coloured orange, and intended for underground installation using conventional open cut (trench) methods, to identify and protect contained underground electrical cables.

Iplex 2700 Series PVC-U rigid electrical ducts are available in diameters ranging from 32mm to 150mm in 6m socketed lengths, suitable for solvent cement jointing.

Nominal internal diameters 80mm, 100mm and 150mm, in Light Duty (LD) or Heavy Duty (HD) classification manufactured to AS/NZS 2053.2.

Nominal internal diameters 32mm, 40mm and 50mm, manufactured to the OD and wall thickness dimensions of AS/NZS 1260.

Iplex 2700 Series PVC-U rigid electrical duct is used by major New Zealand power authorities.

NB: If used unprotected from the sun above ground, orange PVC-U electrical duct may have limited UV / weathering resistance and colour fading (whitening) with some loss of impact strength may occur over time.

An alternative option used successfully above ground, such as under bridge structures, is Iplex Novadrain PVC-U, SN 16 DWV pipe to AS/NZS 1260, coloured light pearl grey, which has the same external dimensions as the 2700 Series orange ducts.

STANDARDS COMPLIANCE

Two pipe manufacturing standards are currently running in parallel until some appropriate future time – when AS/NZS 61386 will supersede AS/NZS 2053. Currently Iplex NZ are manufacturing to both standards.

IPLEX PVC-U BENDS AND FITTINGS

Iplex provide PVC-U electrical duct bends in various diameters, angles and bend radii.



Iplex PVC-U Rigid Electrical Duct

PRODUCT RANGE

Iplex Volta™ PVC-U Rigid Electrical Conduit - (Grey): Above Ground Applications (to AS/NZS 61386.21)
Joint Type - Spigot/Socket SCJ

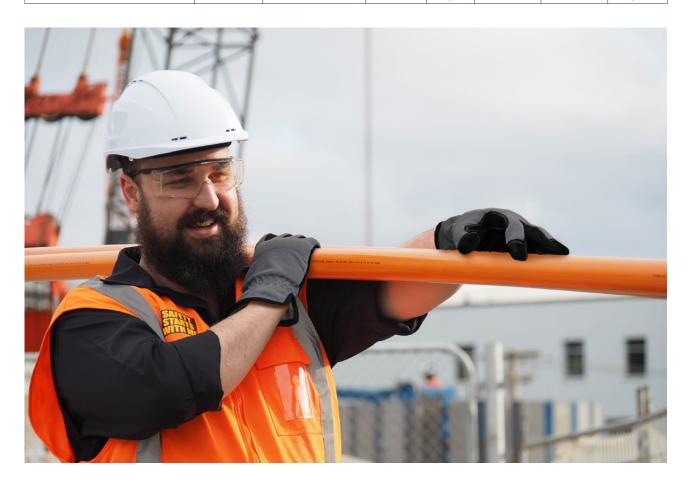


Nominal Diameter (mm)	Order Code	**Duty Classification	Stiffness Class	Mean Outside Diameter (mm)	Minimum Internal Diameter (mm)	Bundle/Pack QTY
20	IPLEXVOLTA.20HD.GY.4	HD4431	N/A	19.9	16.2	10/500
25	IPLEXVOLTA.25HD.GY.4	HD4431	N/A	24.9	20.5	10/320
32	IPLEXVOLTA.32HD.GY.4	HD4431	N/A	31.9	27.0	10/240
40	IPLEXVOLTA.40HD.GY.4	HD4431	N/A	39.9	34.3	10/180
50	IPLEXVOLTA.50HD.GY.4	HD4431	N/A	49.9	43.5	5/150

Iplex Volta™ PVC-U Rigid Electrical Conduit - (Orange): Below Ground Applications (to AS/NZS 61386.21)
Joint Type - Spigot/Socket SCJ



Nominal Diameter (mm)	Order Code	**Duty Classification	Stiffness Class	Mean Outside Diameter (mm)	Minimum Internal Diameter (mm)	Bundle/Pack QTY
20	IPLEXVOLTA.20.HD.OR.4	HD4431	N/A	19.9	16.2	10/500
25	IPLEXVOLTA.25.HD.OR.4	HD4431	N/A	24.9	20.5	10/320
32	IPLEXVOLTA.32.HD.OR.4	HD4431	N/A	31.9	27.0	10/240
40	IPLEXVOLTA.40.HD.OR.4	HD4431	N/A	39.9	34.3	10/180
50	IPLEXVOLTA.50.HD.OR.4	HD4431	N/A	49.9	43.5	5/150



Iplex Volta™ PVC-U Rigid Electrical Duct - (Orange): Below Ground Applications (to AS/NZS 61386.21) Joint Type - Spigot/Socket SCJ



Nominal Diameter (mm)	Order Code	**Duty Classification	Stiffness Class	Mean Outside Diameter (mm)	Minimum Internal Diameter (mm)	Bundle/Pack QTY
80	IPLEXVOLTA.80MD.OR.6	MD3331	N/A	82.5	77.1	88
80	IPLEXVOLTA.80HD.OR.6	HD4431	N/A	82.5	75.3	88
100	IPLEXVOLTA.100MD.OR.6	MD3331	SN4	110.2	103.2	67
100	IPLEXVOLTA.100HD.OR.6	HD4431	SN10	110.2	102.0	67
100	IPEXVOLTA.100VHD.OR.6	VHD5531	SN25	110.2	96.0	67
150	IPLEXVOLTA.150MD.OR.6	MD3331	SN4	160.3	150.4	28
150	IPLEXVOLTA.150HD.OR.6	HD4431	SN10	160.3	148.8	28
150	IPLEXVOLTA.150VHD.OR.6	VHD5531	SN25	160.3	141.4	28

2700 Series PVC-U Rigid Electrical Duct - (Orange): Below Ground Applications (to AS/NZS 2053.2) Joint Type - Spigot/Socket SCJ



Nominal Diameter (mm)	Order Code	**Duty Classification	Stiffness Class	Mean Outside Diameter (mm)	Minimum Internal Diameter (mm)	Bundle/Pack QTY
32**	2700.32.6 SOE	N/A	N/A	36.4	31.6	10/240
40**	2700.40.6 SOE	N/A	N/A	42.9	37.6	10/180
50**	2700.50.6 SOE	N/A	N/A	55.8	50.5	5/150
65**	2700.65.6 SOE	N/A	N/A	68.8	62.5	10/102
80	2700.80LD.6 SOE	LD	N/A	82.5	77.1	88
100	2700.100LD.6 SOE	LD	SN5	110.2	103.2	67
100	2700.100HD.6 SOE	HD	SN40	110.2	97.0	67
100	2700.100SN16.6 SOE	N/A	SN16	110.2	100.6	67
150	2700.150LD.6 SOE	LD	SN5	160.3	150.4	28
150	2700.150HD.6 SOE	HD	SN40	160.3	141.4	28
150	2700.150SN16.6 SOE	N/A	SN16	160.3	146.4	28

^{**}Nominal diameter 32mm, 40mm and 50mm PVC-U ducts coloured orange are manufactured to the OD and wall thickness dimensions of AS/NZS 1260

PVC-U Electrical Bends - (Orange)

2703.50.45R250	
2703.50.9OR250	
2703.100.45R250	
2703.100.9OR250	

Order Code	Size (mm/º)
2703.50.45	50 x 45°
2703.50.90	50 x 90°
2703.80.45	80 x 45°
2703.80.90	80 x 90°
2703.10045R250	100 x 45° ROC* 250mm
2703.100.90R250	100 x 90° ROC* 250mm
2703.100.90R900	100 x 90° ROC* 900mm

*ROC = Radius of Curvature

IPLEX PE 100 FLEXIBLE ELECTRICAL DUCT

Iplex supply a range of flexible PE electrical ducts for the identification and protection of buried electrical cable installations. They are designed for trenchless applications and support installation using trenchless methods, including Horizontal Directional Drilling under roads and built up areas where conventional open cut methods are difficult or impractical.

The Iplex PE flexible electrical duct range conforms dimensionally to AS/NZS 4130 and is available in nominal OD diameters from 32mm to 200mm and in various coil lengths. Iplex PE electrical duct is used by major New Zealand power authorities. *NB*: PE duct installed by Horizontal Directional Drilling is subject to a maximum allowable axial tensile stress for each size / SDR of duct.

NB: If orange coloured PE flexible electrical duct is used unprotected from the sun above ground, UV/ weathering resistance may be limited and colour fading (whitening), with some loss of mechanical strength may occur over time. An alternative option used successfully above ground such as under bridge structures, or on power poles is Iplex Poliplex PE 100 SDR 11 pipe to AS/NZS 4130, coloured black, which has the same external dimensions as the orange ducts and equivalent physical properties.

PRODUCT RANGE

Iplex PE Flexible Electrical Duct



OD (mm)	Order Code	Colour	Coil Length	SDR Rating	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Mean Maximum safe axial pulling load (KN)
32	CABLEDUCT OR 32/28.200	Orange	200m	17	32.1	2.0	1.5
32	CABLEDUCT OR 32/28.500	Orange	500m	17	32.1	2.0	1.5
32	CABLEDUCT OR 32/25.200	Orange	200m	11	32.1	3.2	2.2
32	CABLEDUCT OR 32/25.500	Orange	500m	11	32.1	3.2	2.2
32	CABLEDUCT OR 32/27.200	Orange	200m	13.6	32.1	2.6	1.8
40	CABLEDUCT OR 40/35.100	Orange	100m	17	40.2	2.6	2.3
40	CABLEDUCT OR 40/35.200	Orange	200m	17	40.2	2.6	2.3
50	CABLEDUCT OR 50/44.100	Orange	100m	17	50.3	3.2	3.7
50	CABLEDUCT OR 50/44.200	Orange	200m	17	50.3	3.2	3.7
63	CABLEDUCTOR 63/55.100	Orange	100m	17	63.3	4.0	5.8
63	CABLEDUCT OR 63/55.150	Orange	150m	17	63.3	4.0	5.8
90	CABLEDUCT OR 90/79.50	Orange	50m	17	90.5	5.8	12
90	CABLEDUCT OR 90/79.100	Orange	100m	17	90.5	5.8	12
110	CABLEDUCT OR 110/97.50	Orange	100m	17	110.5	7.0	17.8
110	CABLEDUCT OR 110/97.100	Orange	100m	17	110.5	7.0	17.8
125	CABLEDUCT 125/110.100CXOR	Orange	100m	17	125.5	7.8	22.8
140	CABLEDUCT 140/123.100CXOR	Orange	100m	17	140.6	8.8	28.6
160	CABLEDUCT 160/140.100CXOR	Orange	100m	17	160.4	10.0	37.3

Iplex strongly recommends that mechanical straightening and mechanical re-rounding equipment be used when installing coiled DN 125, 140 and 160 PE duct.

Iplex PE Flexible Electrical Duct - Drum Coil



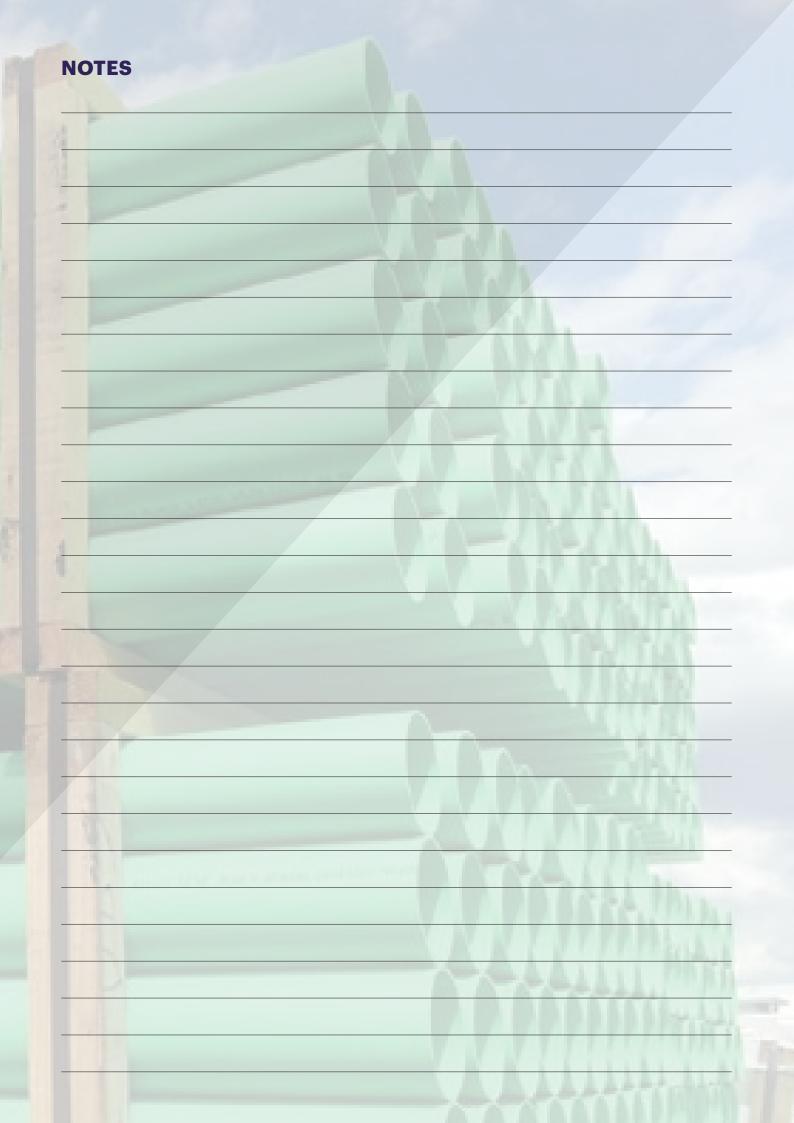
50 CABLEDUC	· ·	range	0000				load (KN)
110 CABLEDUC		-	2000m	17	50.3	3.2	3.7
	UCT50/44.800CXOR • Ora	range	800m	17	50.3.	3.2	3.7
110 CABLEDI	T 110SDR13.6.600CXOR • Ora	range	600m	13.6	110.5	8.6	21.6
	UCT 110/97.340CXOR • Ora	range	340m	17	110.5	7.0	17.8
110 CABLEDU	JCT 110/97.400CXOR • Ora	range	400m	17	110.5	7.0	17.8
110 CABLEDU	UCT110/97.600CXOR • Ora	range	600m	17	110.5	7.0	17.8
140 CABLEDU	CT 140/123 340CXOR • Ora	range	340m	17	140.6	8.8	28.6
140 CABLEDUC		range	340m	13.6	140.6	10.9	34.7

Iplex PE Flexible Electrical Duct - Straight Lengths

Straight Lengths	OD (mm)	Order Code	Colour	Coil Length	SDR Rating	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Mean Maximum safe axial pulling load (KN)
	140	CABLEDUCT 140/123.12CXOR	Orange	12m	17	140.65	8.8	27.3
	160	CABLEDUCT 160/140.12CXOR	Orange	12m	17	160.4	10.0	37.3
	160	CABLEDUCT 160/140.15CXOR	Orange	15m	17	160.4	10.0	37.3



Iplex DN 110 SDR 17 PE Flexible Electrical duct in Free Standing coils and Drum Coils



COMMUNICATIONS

IPLEX PVC-U RIGID COMMUNICATIONS DUCT

Iplex PVC-U Rigid Communications Duct (Chorus Branded & Non-Chorus)

The Iplex range of PVC-U rigid communications duct is available for communications and fiber optic projects requiring cable protection for trenched installation.

Chorus Branded duct is available only to Chorus approved installers and only approved Chorus contractors can purchase and install these products. For further details please contact Iplex Pipelines.

Iplex PVC-U Communications Repair Sleeve (Chorus Branded)

Repair sleeves slide over the outside of the PVC Communications duct and are joined to the duct with PVC solvent cement.



20mm PVC-U Communications Duct (Chorus branded)



100mm PVC Repair Sleeve

IPLEX PEFLEXIBLE COMMUNICATIONS DUCT

(Chorus Branded & Non-Chorus)

Iplex Pipeline's ability to colour-jacket or colour-stripe polyethylene ducting assists the duct asset owner with identification in multiple duct applications.

NB: Flexible PE duct installed by Horizontal Directional Drilling is subject to a maximum allowable axial tensile stress for each size / SDR of duct. Please contact lplex for further information.



Drum Coils - DN 110 PE Communications duct SDR17

PRODUCT RANGEPVC-U RIGID COMMUNICATIONS DUCT

Chorus Branded PVC-U Rigid Communications Duct



Nominal Diamater (mm)	Order Code	Colour	Duty Classification	Stiffness Class	#Joint Type	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Bundle/ Pack QTY
20mm x 6m	10012937	Green	N/A	N/A	Spigot/Socket SCJ	26.7	2.1	150
20mm x 6m	10013281	• White	N/A	N/A	Spigot/Socket SCJ	26.7	2.1	150
50mm x 6m	P4001	Green	N/A	N/A	Rubber Ring Joint	60.3	2.6	123
100mm x 6m	P4000	Green	N/A	N/A	Rubber Ring Joint	110.2	3.6	67

Chorus Branded PVC-U Repair Sleeve for Communications Duct



Nominal Diamater (mm)	Order Code	Colour	Duty Classification	Stiffness Class	#Joint Type	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Bundle/ Pack QTY
50mm x 2m	10013103	Green	N/A	N/A	Plain End, SCJ	65.6	2.6	1
100mm x 2m	10013102	Green	N/A	N/A	Plain End, SCJ	117.3	3.6	1

Non-Chorus Branded PVC-U Rigid Communications Duct (Green)



Nominal Diamater (mm)	Order Code	Colour	Duty Classification	Stiffness Class	#Joint Type	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Bundle /Pack QTY
20mm x 6m	CD80020	• White	N/A	N/A	Spigot/Socket SCJ	26.7	1.4	150
100mm x 6m	2780.100LD.6 SOE	Green	LD	SN4	Spigot/Socket SCJ	110.2	3.1	67
100mm x 6m	2780.100HD.6 SOE	Green	HD	SN40	Spigot/Socket SCJ	110.2	6.1	67
100mm x 6m	2780.100.6RRJNPGREEN	Green	N/A	N/A	Spigot/Socket SCJ	110.2	3.6	67
150mm x 6m	2780.150LD.6 SOE	Green	LD	SN4	Spigot/Socket SCJ	160.3	4.5	28
150mm x 6m	2780.150HD.6 SOE	Green	HD	SN40	Spigot/Socket SCJ	160.3	8.8	28
100mm x 6m	COMMSDUCT.100SN10.HD.GR.6	Green	HD	SN10	Spigot/Socket SCJ	110.2	38	67
150mm x 6m	COMMSDUCT.150SN10.HD.GR.6	Green	HD	SN10	Spigot/Socket SCJ	160.3	5.3	28

Non-Chorus Branded PVC-U Rigid Communications Duct (Red)



Nominal Diamater (mm)	Order Code	Colour	Duty Classification	Stiffness Class	#Joint Type	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Pack Qty
50mm x 6m	2730.50.6 SOE	• Red	N/A	N/A	Spigot/Socket SCJ	60.3	2.4	150
100mm x 6m	2730.100LD.6 SOE	• Red	LD	SN4	Spigot/Socket SCJ	110.2	3.1	67
100mm x 6m	2730.100HD.6 SOE	• Red	HD	SN40	Spigot/Socket SCJ	110.2	6.1	67
150mm x 6m	2730.150HD.6 SOE	• Red	HD	SN40	Spigot/Socket SCJ	160.3	8.8	28
100mm x 6m	COMMSDUCT.100SN10.HD.RED.6	• Red	HD	SN10	Spigot/Socket SCJ	110.2	3.8	67

Iplex PVC-U Rigid Communications Duct (Salmon or Salmon Pink)



Nominal Diamater (mm)	Order Code	Colour	Duty Classification	Stiffness Class	#Joint Type	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Pack Qty
50mm x 6m	COMMSDUCT.50.SAP.6	Salmon Pink	N/A	N/A	Spigot/Socket SCJ	55.85	2.4	150
50mm x 6m	2720.50.6 SOE	Salmon	N/A	N/A	Spigot/Socket SCJ	60.3	2.4	150
100mm x 6m	2720.100LD.6 SOE	Salmon	LD	SN4	Spigot/Socket SCJ	110.2	3.1	67
100mm x 6m	2720.100HD.6 SOE	Salmon	HD	SN40	Spigot/Socket SCJ	110.2	6.1	67
150mm x 6m	2720.150HD.6 SOE	Salmon	HD	SN40	Spigot/Socket SCJ	160.3	8.8	28
100mm x 6m	COMMSDUCT:100SN10.HD.SA.6	Salmon	HD	SN10	Spigot/Socket SCJ	110.2	3.8	67
150mm x 6m	COMMSDUCT:50SN10.HD.SA6	Salmon	HD	SN10	Spigot/Socket SCJ	160.3	5.3	28
100mm x 6m	COMMSDUCT:100SN10.HD.SAP6	Salmon Pink	HD	SN10	Spigot/Socket SCJ	110.2	3.8	67

Iplex PVC-U Rigid Communications Duct



Nominal Diamater (mm)	Order Code	Colour	Duty Classification	Stiffness #Joint Type		Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Pack Qty
100mm x 6m	COMMSDUCT.100.6 SOE	Green	N/A	N/A	Spigot/Socket SCJ	110.2	3.6	67
100mm x 6m	COMMSGREY.100.6 SOE	Grey	N/A	N/A	Spigot/Socket SCJ	110.2	2.9	67

PRODUCT RANGEPVC-U RIGID COMMUNICATIONS DUCT

Vodafone/Telstraclear branded PVC-U Rigid Communications Duct

Nominal Diamater (mm)	Order Code	Colour	Duty Classification	Stiffness Class	#Joint Type	Mean Outside Diameter (mm)	Wall Thickness (mm)	Pack Qty
50	CLEAR 50C SOE	Clear Blue	N/A	N/A	Spigot/Socket SCJ	60.3	2.6	123
100	TCSN6.100.6 SOE	Clear Blue	N/A	SN6	Spigot/Socket SCJ	110.2	3.2	67
50	TC50.6 SOE	Lilac	N/A	N/A	Spigot/Socket SCJ	55.8	2.6	150
80	TC80.6 SOE	• Lilac	N/A	N/A	Spigot/Socket SCJ	82.6	3.0	88

PRODUCT RANGEPE FLEXIBLE COMMUNICATIONS DUCT

Iplex PE Flexible Communications Duct (Salmon)

	Nominal Diameter (mm)	Order Code	Colour	Coil Length	SDR Rating	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Maximum safe axial pulling load (KN)
	25mm	CABLEDUCT SA 25/22.100	Salmon	100m	17	25.1	1.7	1.0
	32mm	CABLEDUCT SA 32/25.500	Salmon	500m	11	32.1	3.2	2.2
	63mm	CABLEDUCT SA 63/55.100	Salmon	100m	17	63.3	4.0	5.8
W. J	110mm	CABLEDUCT SA 110/97.100	Salmon	100m	17	110.5	7.0	17.8
	110mm	CABLEDUCT SA 110/97.340**	Salmon	340m	17	110.5	7.0	17.8

^{**} Supplied as a Drum Coil

Iplex PE Flexible Communications Duct (Red)

	Nominal Diameter (mm)	Order Code	Colour	Coil Length	SDR Rating	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Maximum safe axial pulling load (KN)
	25mm	COMMSDUCT Red 25/20.200	• Red	200m	11	25.1	2.5	1.3
	25mm	COMMSDUCT Red 25/20.500	• Red	500m	11	25.1	2.5	1.3
	32mm	COMMSDUCT Red 32/25.500	• Red	500m	11	32.1	3.2	2.2
	32mm	COMMSDUCT Red 32/27.200	• Red	200m	13.6	32.1	2.6	1.8
	50mm	COMMSDUCT Red 50/44.100	• Red	100m	11	50.2	3.2	5.5
	63mm	CABLEDUCT Red 63/55.100	• Red	100m	17	63.3	4.0	5.8
	110mm	CABLEDUCT Red 110/97.100	• Red	100m	17	110.5	7.0	17.8
	110mm	CABLEDUCT Red 110/97.340**	• Red	340m	17	110.5	7.0	17.8

^{**} Supplied as a Drum Coil

Iplex PE Flexible Communications Duct (Salmon Pink) (Colour RAL 3015 - Light Pink)

Nominal Diameter (mm)	Order Code	Colour	Coil Length	SDR Rating	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Maximum safe axial pulling load (KN)
32mm	COMMSDUCT SAP 32/28.600	Light Pink	500m	17	32.1	2.0	1.5
63mm	CABLEDUCT SAP 63/55.100	Light Pink	100m	17	63.3	4.0	5.8

Iplex PE Flexible Communications Duct (Black/White Tristripe)

	Nominal Diameter (mm)	Order Code	Colour	Coil Length	SDR Rating	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Maximum safe axial pulling load (KN)
	32mm	Cable Duct 32/27.200 WTS	•Black/White Tri-Stripe	200m	13.6	32.1	2.6	1.8
	63mm	Cable Duct 32/27.500 WTS	•Black/White Tri-Stripe	500m	13.6	32.1	2.6	1.8

PRODUCT RANGEPE FLEXIBLE COMMUNICATIONS DUCT

Chorus Branded PE Flexible Communications Duct

Nominal Diameter (mm)	Order Code	Colour	Coil Length	SDR Rating	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Maximum safe axial pulling load (KN)
20mm	20021793	• Green	200m	11	20.1	2.2	0.8
32mm	10012829	Black with red multistripe	1000m	13.6	32.1	2.6	1.8
32mm	10012829500	Black with red multistripe	500m	13.6	32.1	2.6	1.8
32mm	10012830	Black with green multistripe	1000m	13.6	32.1	2.6	1.8
32mm	10012830500	Black with green multistripe	500m	13.6	32.1	2.6	1.8
32mm	10012831	Black with violet multistripe	1000m	13.6	32.1	2.6	1.8
32mm	10012831500	Black with violet multistripe	500m	13.6	32.1	2.6	1.8
32mm	10012832	Black with brown multistripe	1000m	13.6	32.1	2.6	1.8
32mm	10012832500	Black with brown multistripe	500m	13.6	32.1	2.6	1.8

NON - Chorus Branded PE Flexible Communications Duct

Nominal Diameter (mm)	Order Code	Colour	Coil Length	SDR Rating	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Maximum safe axial pulling load (KN)
32mm	COMMSDUCT.32/27.1000RMS	Black with red multistripe	1000m	13.6	32.1	2.6	1.8
32mm	COMMSDUCT.32/27.1000GMS	●Black with green multistripe	1000m	13.6	32.1	2.6	1.8
32mm	COMMSDUCT.32/27.1000LMS	●Black with violet multistripe	1000m	13.6	32.1	2.6	1.8
32mm	COMMSDUCT.32/27.1000BRMS	●Black with brown multistripe	1000m	13.6	32.1	2.6	1.8

Non-Chorus Branded PE Flexible Communications Duct

	OD (mm)	Order Code	Colour	Coil Length	SDR Rating	Mean Outside Diameter (mm)	Mean Wall Thickness (mm)	Maximum safe axial pulling load (KN)
	32	TELEDUCT PE32/28.200	Lime Green	200m	17	32.1	2.0	1.5
	32	TELEDUCT PE32/28.500	Lime Green	500m	17	32.1	2.0	1.5
	63	TELEDUCT PE63/55.100	Lime Green	100m	17	63.3	4.0	5.8
	63	TELEDUCT PE63/55.150	Lime Green	150m	17	63.3	4.0	5.8
	110	TELEDUCT PE110/97.50	Lime Green	50m	17	110.5	7.0	17.8
	110	TELEDUCT PE110/97.100	Lime Green	100m	17	110.5	7.0	17.8

Spark Branded PE Flexible Communications Duct (Colour: Pink RAL4010)

OD (mm)	Order Code	Colour	Coil Length	SDR Rating	Mean Outside Diameter (mm)	Mean Internal Diameter (mm)	Mean Wall Thickness (mm)	Maximum safe axial pulling load (KN)
32	SPARK DUCT PE32/26.500	Magenta	500m	11	32.1	25.9	3.1	2.2
32	SPARK DUCT PE32/27.500	Magenta	500m	13.6	32.1	26.9	2.6	1.8
63	SPARK DUCT PE63/53.100	Magenta	100m	13.6	63.3	53.3	5.0	7.1
63	SPARK DUCT PE63/55.100	 Magenta 	150m	17	63.3	55.2	4.0	5.8
110	SPARK DUCT PE110/97.100	 Magenta 	100m	17	110.5	96.5	7.0	17.8

PRODUCT RANGE PE FLEXIBLE COMMUNICATIONS DUCT

Vodafone/Telstraclear Branded PE Flexible Communications Duct

OD (mm)	Order Code	Colour	Coil Length	SDR Rating	Mean Outside Diameter (mm)	Mean Internal Diameter (mm)	Mean Wall Thickness (mm)	Maximum safe axial pulling load (KN)
110	CLEAR 110/97.100	• Light Blue	100m	17	110.5	96.5	7.0	17.8
110	CLEAR 110/97.340	• Light Blue	340m**	17	110.5	96.5	7.0	17.8

^{**} Drum Coil

IPLEX PE AND PVC-U COMMUNICATIONS BENDS & FITTINGS

Iplex Pipelines has a range of fittings for use with PVC-U and PE Communications ducting. These include post formed PVC bends, couplers and reducing saddles. Chorus Branded fittings are compatible for use with Chorus Branded Communications ducts. Standard duct fittings are compatible with Iplex Communications cable ducts.

Chorus Branded PVC-U Communications Bends

		Size	Order Code	Colour	Pack Qty
20		20mm x 90° ROC* 240	10012582	Green	1
20mm Formed		20mm x 90° ROC* 400	10013280	Green	1
Bend F&F		20mm x 90° ROC* 530	10012939	Green	1
		20mm x 90° ROC* 100	10013279	• White	1
	10011337	20mm x 90° ROC* 300	10012940	• White	1
		50mm x 30° ROC* 350	10013084	Green	1
	rmed	50mm x 45° ROC* 200	10013087	Green	1
50mm		50mm x 45° ROC* 350	10013086	Green	1
Bend M&F		50mm x 45° ROC* 900	10013100	Green	1
		50mm x 90° ROC* 350	10013088	Green	1
	10013088	50mm x 90° ROC* 900	10013099	Green	1
		100mm x 22° ROC* 900	10013098	Green	1
	10013098	100mm x 30° ROC* 300	10013091	Green	1
		100mm x 45° ROC* 300	10013093	Green	1
100mm Formed Bend M&F	10013091	100mm x 90° ROC* 350	10011337**	Green	1
	10013093	100mm x 90° ROC* 400	10013095	Green	1
		100mm x 90° ROC* 900	10013094	Green	1
	10011337**	100mm x 90° ROC* 601	10013096	Green	1

*ROC = Radius of Curvature **Female / Female (F&F) Bend

SECTION 2COMMUNICATIONS

Chorus Branded PVC-U Communications Fittings

Coupler	Coupler	Size	Order Code	Colour	Pack Qty
		50mm	10013109	• Green	1
Reducing Saddle		50mm x 20mm	10012938	• Green	1
Dust Cap		50mm	P4004	Black	1
Dust Cap		100mm	P4005	Black	1

White PVC-U Communications Bends

CD8032045	Size	Order Code	Colour	Pack Qty
	20 x 45°	CD8032045	• White	1
CD8032090	20 x 90°	CD8032090	• White	1

Plasson Compression Couplings for PE Communications Ducts

		Size (mm)	Order Code	Colour	End load restrained	Full pipe bore available
Plain Coupling		32	2510.32	Black	Yes	Yes
		63	2510.63	Black	Yes	Yes
		110	2510.110	Black	Yes	Yes
		125	2510.125	Black	Yes	Yes
Slip		32	2511.32	Black	Yes	Yes
Coupling	(Repair) Coupling	63	2511.63	● Black	Yes	Yes



Plasson Line 7 Mechanical coupler (order code 2510 Series) joining Iplex PE Communication Ducts

COMPRESSION FITTINGS FOR IPLEX PE ELECTRICAL DUCTS AND COMMUNICATIONS DUCTS

Plasson Line 7 Fittings - Assembly Instructions (20mm - 63mm)

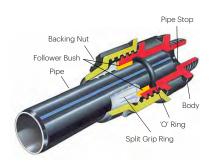
EPLASSON

General Instructions

Follow these assembly Instructions for a secure, connection.

- Ensure the pipe end to be inserted into the fitting, and the fitting itself, are both totally free of dirt, grit, scratches and any other damage
- Do not overtighten the Backing Nut when closing. NEVER use wrenches with handle lengths longer than 22cm – excessive torque during tightening can spread the Backing Nut cone and result in pullouts.
- If fittings are reused, ensure the Split Grip Ring is sharp and can bite into the pipe to avoid pull outs. Alternatively replace the Split Grip Ring.

20mm - 63mm





STEP 1

Cut the pipe square and remove burrs. It is good trade practice to chamfer (with a file or Plasson 2555 chamfering tool) and lubricate the pipe ends. (use Medlube or an approved equivalent). Chamfering and lubrication will ease insertion, particularly for sizes DN 40, DN 50 and DN 63, however these steps are optional.



STEP 2

Undo the nut up to the last thread. **Do not remove the Backing Nut** from the fitting body.



STEP 3

Twist the pipe into the fitting through the Backing Nut and through the Split Grip Ring until it meets the first resistance – pushing against the captive O-ring. Then push and twist the pipe **through and past the O-ring** until it stops at the pipe stop inside the fitting – the final stop.



STEP 4

Twist the pipe into the fitting through the Backing Nut and through the Split Grip Ring until it meets the first resistance – pushing against the captive O-ring. Then push and twist the pipe through and past the O-ring until it stops at the pipe stop inside the fitting – the final stop.

COMPRESSION FITTINGS FOR IPLEX PE ELECTRICAL DUCTS AND COMMUNICATIONS DUCTS

Plasson Line 7 Fittings - Assembly Instructions (75mm - 125mm)



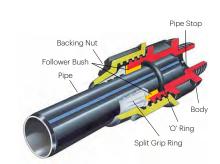
75mm - 125mm

General Instructions



STEP 1

Cut the pipe, square. Unscrew the Backing Nut and **remove the Split Grip ring**. Reposition Backing Nut, Follower Bush and O ring on the pipe, two diameters back. Lubricate pipe and O ring, with Medlube.





STEP 2

Push the pipe fully into the fitting body, up to the internal stop. Push the O ring and Follower Bush forward until they rest against the fitting (They will not enter the body of the fitting).



STEP 3

Tighten the Backing Nut to drive the Follower Bush and O ring together, right into the fitting until the Follower Bush is flush with fitting mouth. Use a Plasson C ring spanner to assist as needed.



STEP 4

Fully unscrew the Backing Nut, and pull back along the pipe.

Now, open the Split Grip Ring and place directly over and onto the pipe, with the lugs and flat end, **facing and touching** the Follower Bush.



STEP 5

Firmly tighten the Backing Nut with only a Plasson "C-ring" spanner. (Max handle length = 46cm) Do not overtighten.



IPLEX POLIGAS™PE GAS PIPE

The Iplex Poligas[™] range of polyethylene gas pipe for Natural Gas (fuel gas) applications includes both Imperial (nominal ID) and Metric (OD) dimension sizes. Poligas[™] pipe is made in PE 80 material externally coloured yellow for easy identification as gas pipe. PE 100 material is also available either externally coloured yellow or as yellow multistripe.

- Poligas™ PE Metric Dimension Gas Pipe is manufactured to AS/NZS 4130 Series 1.
- Poligas™ PE Imperial Dimension Gas Pipe is manufactured to AS/NZS 4130 Series 3.

Iplex Poligas® PE Gas Pipe - Imperial (Nominal ID) Dimension

	Nominal Internal Diameter (mm)	Order Code	Coil Length	Mean Outside Diameter (mm)	Colour	SDR
Free Standing Coil	10mm	200.10.150.9 IMP	150m	15.7 - 16.0	Yellow	9
	15mm	200.15.150.9 IMP	150m	21.4 - 21.7	Yellow	9
	20mm	200.20.150.11 IMP	150m	26.6 - 26.9	Yellow	11
	25mm	200.25.150.11 IMP	150m	33.4 - 33.7	Yellow	11
	32mm	200.32.150.11 IMP	150m	42.1 - 42.4	Yellow	11
	50mm	200.50.100.11 IMP	100m	60.2 - 60.5	• Yellow	11
	80mm	200.80.100.11 IMP	100m	88.7 - 89.2	Yellow	11
	100mm	200.100.100.11 IMP	100m	114.1 - 114.7	Yellow	11

Manufactured to AS/NZS 4130 Series 3

Iplex Poligas® PE Gas Pipe - Metric (OD) Dimension

Free Standing Coil	Nominal Internal Diameter (mm)	Order Code	Coil Length	Outside Diameter (mm)	Colour	SDR
	25mm	230.25SDR11.150	150m	25.1	• Yellow	9.9
	32mm	230.32SDR11.150	150m	32.1	• Yellow	9.9
Straight Length	63mm	230.63SDR11.150	150m	63.3	• Yellow	11
	110mm **	230.110SDR11.15BY	15m	110.5	• Black / Yellow Stripes	11

Manufactured to AS/NZS 4130 Series 1 ** Straight Lengths

Iplex Poligas™ PE100 Gas Pipe - Metric (OD) Dimension

Free Standing Coil	Nominal Internal Diameter (mm)	Order Code	Coil Length	Mean Outside Diameter (mm)	Colour	SDR
	90mm	250.90SDR11.100YMS	100m	90.4	Black with Yellow Stripes	11
	90mm	250.90SDR9.100YMS	100m	90.4	Black with Yellow Stripes	9
	110mm	250.110SDR11.100YMS	100m	110.5	Black with Yellow Stripes	11
	110mm	250.110SDR9.100YMS	100m	110.5	Black with Yellow Stripes	9
	125mm	250.125SDR11.50YMS	50m	125.6	Black with Yellow Stripes	11
Straight Length	125mm	250.125SDR9.50YMS	50m	125.6	Black with Yellow Stripes	9
	160mm **	250.160SDR11.15YMS	15m	160.7	Black with Yellow Stripes	11
	160mm **	250.160SDR9.15YMS	15m	160.7	Black with Yellow Stripes	9

^{*} Manufactured to AS/NZS 4130 Series 1 ** Straight Lengths

Iplex recommends that mechanical straightening and mechanical re-rounding equipment be used when installing DN 125 and DN 160 pipe from coils.

Iplex Poligas™ PE80 Gas Pipe - Imperial (Nominal ID) Dimension: Drum Coil

Drum Coil	Nominal Outside Diameter (mm)	Order Code	Coil Length	Mean Outside Diameter (mm)	Colour	SDR
	100mm	200.100.430.11 IMP	430m	114.4	• Yellow	11

Manufactured to AS/NZS 4130 Series 3 Drum Coils may be available in other sizes subject to minimum order quantity. Contact Iplex NZ for availability.

Iplex Poligas™ PE80 Gas Pipe - Imperial (Nominal ID) Dimension, Straight Lengths

	Nominal Outside Diameter (mm)	Order Code	Length	Mean Outside Diameter (mm)	Colour	SDR
Straight Lengths	32mm	200.32.6.11 IMP	6m	42.3	Yellow	11
	50mm	200.50.6.11 IMP	6m	60.3	Yellow	11
	80mm	200.80.12.11 IMP	12m	88.9	Yellow	11
	100mm	200.100.6.11 IMP	6m	114.4	Yellow	11
	100mm	200.100.12.11 IMP	12m	114.4	Yellow	11
	150mm	200.150.1211 IMP	12m	168.4	Yellow	11
	150mm	200.150.15.11 IMP	15m	168.4	Yellow	11

Manufactured to AS/NZS 4130 Series 3

IPLEX QUALITY MANAGEMENT SYSTEMS

Quality Assurance

Creating products of consistently high quality is at the forefront of the Iplex manufacturing process, and central to the customer promise that Iplex product quality meets or exceeds standards claimed.

All Iplex manufacturing plants operate under a strict ISO 9001 Quality Management System (QMS). External certifying bodies carry out regular audits to provide third-party certification of the Company's QMS. Continued third-party product certification of Iplex plastic pipeline products to relevant Australian & New Zealand standards, is also provided by these bodies.

The Iplex laboratory is an IANZ accredited facility, providing added assurance that any measurement and testing is carried out professionally and in a technically reliable manner in accordance with international standards.





CERTIFICATE TYPE	LICENCE NUMBER	CERTIFYING BODY
ISO 9001	QEC4169	SAI Global
AS/NZS 1254	SMKP20126 & SMKP20180	SAI Global
AS/NZS 1260	SMKP20184, SMKP20185 & SMK1305	SAI Global
AS/NZS 1477	SMK02569 & SMKP20181	SAI Global
AS/NZS 4130	SMKP20400	SAI Global
AS/NZS 4441	SMKP20682	SAI Global
AS/NZS 4765	SMK02570	SAI Global
AS/NZS 61386	LIC 2901 & LIC 2910	Bureau Veritas
NZ ISO/IEC 17025	ACCREDITATION NUMBER 61	IANZ
BEST ENVIRONMENTAL PRACTICE PVC	BEP-PVC 0067	Approval Mark International

IPLEX PIPELINES NZ THE COMPANY

Iplex is one of New Zealand's leading manufacturers and suppliers of plastic pipeline systems. Iplex provides products and services throughout New Zealand and to export markets around the Pacific and other international markets. Iplex has manufacturing operations in Palmerston North, Christchurch and Ashburton, as well as access to the Iplex Australian network.

Iplex has been manufacturing plastic pipelines since 1938 and with over 80 years of industry service and technical experience, Iplex is well positioned to ensure that projects are delivered successfully.

Energy and Communications is an important sector for Iplex NZ and there is a wide range of conduits, ducts and fittings available for new development and maintenance projects. The range covers electrical, communication and gas.

Iplex also services the following industry sectors:

Civil: Iplex provides a wide range of solutions for wastewater, drainage and potable water pipeline projects. Manufacturing both PE (Polyethylene) & PVC (Polyvinylchloride) for both pressure and non-pressure (gravity fed) pipeline systems including civil infrastructure, drainage systems and roading systems.

Plumbing: The Iplex plumbing sector covers pipes and fittings used within the property boundary. This includes reticulation of potable and non-potable water, sanitary plumbing, wastewater, drainage and gas reticulation. Iplex have the capabilities of supplying drain, waste and vent pipes and fittings, rainwater systems, traps and accessories.

Rural: Iplex also service the rural market providing pipes and fittings for rural use. Iplex provide systems for irrigation, stock water, land drainage, culverts and farm dairy effluent.



Iplex Pipelines manufacturing plant and distribution hub in Palmerston North, New Zealand.

ENERGY & COMMUNICATIONS SPECIFICATION AND INSTALLATION GUIDE, JUNE 2022

LIMITATIONS

The information contained in this document is current as at June 2022 and is based on data available to Iplex Pipelines NZ Ltd at the time of going to print.

All photographic images are intended to provide a general impression only and should not be relied upon as an accurate example of Iplex Pipelines NZ Ltd products installed in accordance with this document or the referenced compliance documents.

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TRADEMARKS

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IPLEX PIPELINES NZ LIMITED

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