Ginde®

PIPE SYSTEMS

Exclusive to Mico

MICO Plumbing

Who is Ginde?

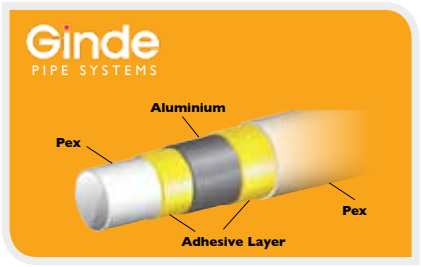
Ginde Plastic Pipe Industry Group (GPPIG) is the largest pipe manufacturer in Asia with 8 operation plants totalling more than 80000sqm. Joining forces with German giant UNICOR Plastic Equipment Manufacture Co. Ltd, Ginde was able to equip their plants with more than 300 Hi Tech German Machines, digitally and hydraulic controlled.

With more than 10 000 employees, Ginde provides advanced piping solutions for Plumbing, Heating and Gas for all building types, from residential housing to industrial and commercial buildings. Ginde is at the forefront of piping solutions, providing integrated systems from pipes and fittings to tools and accessories, everything you need is designed, produced and supported by the same company. With over 15 years' experience in thermoplastic piping, you can count on Ginde to always deliver the best quality.

More than 60% of what is produced is exported to over 88 countries worldwide. Ginde endeavours to provide customers with diversity in choice, and satisfaction in quality. By integrating their excellent R & D capability and production scale, Ginde are able to provide a range of services from OEM'S to tailored services for niche markets.

Ginde Multi-Layer Pipe

Ginde MLP consists of five layers. The outside layer is made up of polyethylene (HDPE) and the inner layer of cross linked hi-density polyethylene. These two layers are tightly bonded with a special melt adhesive to the mid layer of aluminium core which is longitudinally joined using an ultrasonic overlap welding technique. All these layers are extruded in one step to ensure a very strong and solid construction. The HDPE is hygienic and toxin free, and smooth which results in a 30% better flow rate than metal pipe. The AL is 100% gas and oxygen tight. This combination of metal and plastic delivers a pipe system of the highest quality.



Pipe Construction

1. Outer layer of hi-density polyethylene (HDPE)
2. Hot-Melt Adhesive
3. Aluminium which is longitudinally joined using an ultrasonic overlap welding technology.
4. Hot-Melt Adhesive
5. Inner layer of cross-linked polyethylene

Thermal Conductivity

0.45W/(M.K) is about 1/100 that of steel pipe and several times higher than that of insulating materials. Heat preservation and energy saving properties greatly minimize heat loss during water flow. This advantage allows extreme temperatures, especially for surfaces use in extreme cold conditions. It therefore has superior resistance to high temperature, high pressure, corrosion and fire.

Coefficient of Thermal Expansion

0.025mm/(M.K) is only 1/8 that of all polyethylene pipe and almost the same as that of steel pipe. See table on page 14. This advantage gives the user the option of laying the pipe inside concrete without facing the problem of a burst pipe or cracked wall. The aluminium middle layer has a very low linear heat expansion coefficient.

Working Temperature

The pipe has a high temperature and high pressure resistance and can work under continuous normal working pressure with water temperature of -40°C to 121°C

Bending Radius

The different layers bonded together allow the Ginde MLP pipe to be bent at this very efficient bending radius. Although it is advisable to use a bending spring or pipe bending tool, the smaller diameter pipe can easily be bent by hand which saves both time and money. Recommended bending radius by hand is 5 times the outside diameter of the MLP pipe.

Oxygen Permeability

The overlap welded aluminium layer secures a 100% oxygen barrier and therefore prevents growth of microorganisms and bacteria. This hygienic advantage is especially well accepted and appreciated in the plumbing, medical and food industries.

Burn Resistance

The P-A-P composite of the Ginde MLP has a much better burning resistance than other polyethylene pipes. With the test by the national fire proof construction materials quality supervisory test centre, the burning resistance reaches grade B1 of GB8624, the same stipulations that are used for wire and cable conduit plastic material.

Detectability

Metal detectors can be used to detect the pipe underground, in wall and in floors because of the aluminium content in the pipe.

Corrosion Resistance

Besides eliminating corrosion especially in coastal areas, Ginde MLP does not dissolve in any known solution and is resistant against various kinds of acids, alkali and salt at normal temperatures. Corrosion resistance properties prevents encrustation build up in the pipes, enabling the free flow of water and eliminating rust that can cause stains in tubs and basins.

Hygiene

Ginde multi-layer pipe is hygienic, non-toxic, rust free and prevents growth of micro-organism and therefore avoids contamination of water and its health risks.

Lifespan

Under normal operating conditions the Ginde MLP has a lifespan of 50 years which gives the end user peace of mind and the installer more credibility.

Static Shield

It has excellent static shield properties and often used to cover electrical cabling and computer cabling.

Ginde PexB Pipe

(Cross Linked Polyethylene)

PexB Pipe is a new generation of cross-linked polyethylene pipe. PexB is the latest innovation in plastic pipe that is easy to install due to its flexibility and performance. Ginde PexB is compatible with the Ginde DR fittings and carries Watermark Standard for use with water in NZ.

Ginde PexB Pipe Properties

1. Excellent lower temperature resistance -40°C~+95°C
2. Increased pressure rating of nominal stress of 1250kPa at 20°C and a burst pressure greater than 4000kPa, at 20°C. At 95°C a constant pressure of 1000kPa can be obtained.
3. PexB pipe contains non-toxic components, therefore no rot or bacteria can grow.
4. Has great flexibility to make any installation fast and easy.
5. Having a smooth inner wall, the pipe features less flow resistance, with a 30% increased flow rate compared with zinc-plated steel pipe.
6. Bending radius is 8 times of the outside diameter.
7. Ginde PexB Pipe carries a 30 Year Warranty

Applications

1. Potable hot and cold water supply
2. Under-floor radiant heating
3. Chemical, foodstuffs, petroleum and pharmaceutical industry
4. Refrigeration industry
5. Water treatment systems
6. Agricultural, farming and engineering (compressed air)

Installation Instructions

1. Cut the pipe squarely using Ginde Pex Pipe cutters. Ensure there are no rough edges and the inside is clean and free of any debris.

2. Using a twisting action, insert the rounding tool into the pipe, and repeat if necessary until it moves freely within the pipe.

3. Push the pipe over the barbed fitting with the stainless steel sleeve until the pipe is visible through the witness opening.

4. Centralise the R.E.M.S Crimping Tool so the Jaws are aligned over the stainless steel sleeve. The jaws should be against the plastic stop ring and not over it. Compress the tool slowly until the jaws are fully closed.

5. Inspect the crimp by using the crimp gauge to ensure a successful crimp was achieved.

IMPORTANT: Failure to use the rounding tool will VOID the warranty.

Ginde DR Fittings

The patented Ginde press fittings are an innovative design, which is developed according to the international advanced technology standards, and has been the mainstream fitting used in Europe and U.S. Specially made for Australian and New Zealand markets, all Ginde press fittings are made with DR brass and carry the Watermark approval. The specially designed O-ring allows the Ginde Fittings to be used on gas or water.

Unique Structure

- Two O-rings placed on the fitting insert.
- Three annular grooves on the three-step-labyrinth structure insert.
- Perfect sealing performance.
- Dezincification Brass
- Gas approved EPDM O-Ring

High Quality Sealing Material

The O-Rings are made of EPDM, which has an excellent resistance to aging and drying, thereby adding to the lifetime of the DR fitting. With this high quality O-ring Ginde guarantees one fitting suitable for use on Water and Gas.

Ginde Fittings

JDE Code	Aqualine Code	Size / Description
Ginde Straight Coupler		
593414	GSC16	16mm DR
593415	GSC20	20mm DR
593416	GSC25	25mm DR
648936	GSC32	32mm DR
Ginde Red Coupler		
593417	GRC2016	20-16mm DR
593418	GRC2516	25-16mm DR
593419	GRC2520	25-20mm DR
683813	GRC3220	32-20mm DR
621713	GRC3225	32-25mm DR
Ginde Female Coupler		
593420	GFC1615	16x15mm DR
593421	GFC2015	20x15mm DR
593422	GFC2020	20x20mm DR
593423	GFC2520	20x25mm DR
589811	GFC3225	32x25mm DR
593397	GFC3232	32x32mm DR
Ginde Male Coupler		
593427	GMC1615	16x15mm DR
593428	GMC2015	20x15mm DR
593429	GMC2020	20x20mm DR
593430	GMC2515	25x15mm DR
593431	GMC2520	25x20mm DR
621712	GMC2525	25x25mm DR
589822	GMC3225	32x25mm DR
593365	GMC3225	32x25mm DR
593366	GMC3232	32x32mm DR
Ginde Elbow		
593432	GE16	16mm DR
593433	GE20	20mm DR
593434	GE25	25mm DR
628446	GE32	32mm DR
Ginde Female Elbow		
593435	GFE1615	16-15mm DR
593436	GFE2015	20-15mm DR

	JDE Code	Aqualine Code	Size / Description
	**Ginde Female Wingback**		
	593437	GFWE1615	16-15mm DR
	593438	GFWE2015	20-15mm DR
	635311	GFWE1620	16-20mm DR
	621777	GFWE2020	20-20mm DR
	**Ginde Male Wingback**		
	621705	GMWE2020	20-20mm DR
	621708	GMWE1615L	16-15mm DR
	683814	GMWE1615S	16-15mm DR
	**Ginde Male Elbow**		
	621778	GME1615	16-15mm DR
	621779	GME2020	20-20mm DR
	593365	GME3225	32-25mm DR
	**Ginde Hose Plate Female**		
	621133	GHP1615	16-15mm DR
	**Ginde Tee**		
	593439	GT16	16mm DR
	593440	GT20	20mm DR
	593441	GT25	25mm DR
	648937	GT32	32mm DR
	**Ginde Reducing Tee**		
	593442	GRT201620	20x16x20mm DR
	593444	GRT252025	25x20x25mm DR
	606679	GRT251625	25x16x25mm DR
	621131	GRT202016	20x20x16mm DR
	621138	GRT201616	20x16x16mm DR
	644979	GRT252020	25x20x20mm DR
	589843	GRT321632	32x16x32mm DR
	589844	GRT322032	32x20x32mm DR
	**Ginde Swivel Ball Valve**		
	610626	GBVF2520	25s/nutx20mm crimp
	610627	GBVF2020	20s/nutx20mm crimp
	621710	GBVF1615	16s/nutx20mm crimp

JDE Code	Aqualine Code	Size / Description
Ginde Swivel Elbow		
621132	GSE16	16mm DR
635312	GSE20	20mm DR

Ginde Female Swivel Coupler		
593424	GFSC1615	16-15mm DR
593425	GFSC2020	20-20mm DR
593426	GFSC2520	25-20mm DR
621709	GFSC2015	20-20mm DR
593361	GFSC3225	32-25mm DR

Ginde End Cap		
621127	GEC16	16mm DR
621128	GEC20	20mm DR
621129	GEC25	25mm DR
589849	GEC32	32mm DR

Ginde Pipes

Ginde PexB Pipe		
621706	GPB165	16mm x 5m
621707	GPB205	20mm x 5m
621125	GPB16100	16mm x 100m
621126	GPB20100	20mm x 100m

Ginde Gas Pipe		
589791	GGP1650	16mm x 50m
589792	GGP2050	20mm x 50m
589793	GGP2550	25mm x 50m
593484	GGP165	16mm x 5m
593485	GGP205	20mm x 5m
593486	GGP255	25mm x 5m
589794	GGP3250	32mm x 50m
648935	GGP325	32mm x 5m

Ginde MLP Pipe		
593343	GMLP1650	16mm x 50m
593344	GMLP2050	20mm x 50m
593345	GMLP2550	25mm x 50m
593490	GMLP165	16mm x 5m
593491	GMLP205	20mm x 5m
593492	GMLP255	25mm x 5m

Ginde Tools

JDE Code	Aqualine Code	Size / Description
593446	GRBT1625	Rounder Beveller Tool
593447	GRBT2032	Rounder Beveller Tool
683815	GRCT	Rachet Cutting Tool
683816	GBCT	Black Cutting Tool
683817	GEPT	Eco Press Tool
593479	GCU16R	Crimping Head Only
593480	GCU20R	Crimping Head Only
593481	GCU25R	Crimping Head Only
683818	GCT16	Crimping Tool
683819	GCT20	Crimping Tool
683820	GCT25	Crimping Tool
683821	GCT32	Crimping Tool
593483	RMPBT	Mini Press Battery Tool REMS

Ginde Crimp Rings		
593401	GCR16	16mm
593402	GCR20	20mm
593403	GCR25	25mm
593404	GCR32	32mm

Ginde Quick Clip		
593470	QC16B	Black 16mm
593471	QC20B	Black 20mm
583651	QC15G	Gas QC15G YELLOW
583652	QC20G	Gas QC20G YELLOW
583653	QC25G	Gas QC25G YELLOW
583654	QC32G	Gas QC32G YELLOW
583655	QC40G	Gas QC40G YELLOW

GINDE Elbow Support Bracket		
653309	GESB16	16mm
653310	GESB20	20mm

Technical Data

MLP Pipe:

Thermal conductivity	*0.45W/(M.K)*
Coefficient of thermal expansion	*0.025mm / (M.K)*
Bend radius	*≥ 5 x D (D= outside diameter)*
Working temperature	*-40°C - 121°C*
Oxygen permeability	*0%(NIL)*
Coefficient of roughness	*0.004mm*
Corrosion resistance	*Non corrosive*
Burning resistance	*Grade B1 of GB8624*
Hygiene	*Anti-Bacterial (doesn't support any growth)*
Burst pressure / Working	*85.98 bar / 5515.81 kPa*
Warranty	*30 years*
Detectable	*Walls and underground with metal detector*
Static shield	*Permanent Static Shield*

PexB Pipe:

Heat conductivity	*0.41W/(M.K)*
Linear expansion coefficient	*0.025mm/(M.K)*
Bend radius	*≥8 x D (D= outside diameter)*
Working temperature	*-40°C – 95°C*
Oxygen permeability	*0% NIL*
Tensile strength	*≥17%*
Corrosion resistance	*Non corrosive*
Burning resistance(softening @)	*123°C*
Hygiene	*Safe (GB/TI 7219-1998)*
Burst pressure / Working	*60.42 Bar / 1600 kPa*
Warranty	*30 years*
Density	*≥0.94 g/mc3*
Elongation at break	*≥350*

Clipping of Pipes:

In accordance with AS/NZS 3500, Ginde pipes installed above ground shall be retained in position by clips at intervals complying with the table below:

Pipe Diameter	Horizontal	Vertical
16mm	600mm	1200mm
20mm	750mm	1400mm
25mm	750mm	1500mm

Testing & Inspecting:

Testing should be performed to the requirements of AS/NZS 3500 part 1, 4 & 5 and in accordance with Local Authority recommendations. While the system is under test, all joints and fittings should be inspected for leaks to ensure that pipe and fittings have been successfully joined.

Faulty Connection:

If a faulty connection is detected, care should be taken by cutting out the defective joint and replace it with a new fitting. Also, if the pipe is kinked or flattened, the faulty section of pipe should be replaced.

Timber and metal framework:

Holes drilled in studs or plates, shall be accurately sized to allow for longitudinal pipe movement caused by thermal expansion and contraction. In metal framework suitable grommets or sleeve's must be installed to avoid abrasion and physical damage to the pipe.

Note: Use of silicon and other such materials is not permitted and could cause damage to the pipe.

UV Resistance:

Due to the harsh UV conditions in NZ, Ginde Pex pipe will not be covered under warranty if installed in direct sunlight. Care should be taken to cover pipes by means of UV rated insulation and/or, by using a UV rated sleeve.

Approvals

Ginde is a world renowned supplier of quality products, who exports to more than 88 countries and has thereby gained many international approvals including SAI, Watermark, ISO and the highly regarded German DIN standard. Furthermore, Ginde Piping System is approved and certified to AS4176.2:2010 and AS4176.3:2010 and to all relevant standards used in Australia and New Zealand.

Frequently Asked Questions:

Q. Can Ginde pipe and fittings be used in ground?
A. Yes, as long as it is in accordance with AS/NZS 3500

Q. Can Ginde pipe be used to connect directly to the gas meter?
A. Yes, providing the exposed pipe is lagged or sleeved as the pipe is not UV resistant.

Q. Can Ginde pipe and fittings be used on Rifeng and visa-versa?
A. Yes, Ginde warrants all pipe and fittings to be used on Rifeng products.

Q. Can Ginde pipe be embedded in concrete?
A. Yes, the pipe can be embedded in concrete but cannot contain any joints. Ginde recommends that pipe should be sleeved for best practice.

Q. What warranty do I receive when I install Ginde pipe?
A. When installed and used correctly for its intended purpose, as specified in AS/NZS 5601, and the Ginde installation guide, Ginde warrants against manufacturing defects for a period of 30 years from the date of purchase (conditions apply).

Q. How close can Ginde pipe be to high heat sources such as heating appliances and flues from heating appliances?
A. Ginde pipe should be kept at least 500mm from such heat sources.

Q. What distance should Ginde pipe be kept from recessed electric light fittings?
A. Ginde pipe should be kept at least 300mm from light fittings.

Q. How close can Ginde pipe be to gas or central heating vents or flues?
A. No closer than 150mm.

Q. Can Ginde pipe be installed in direct sunlight?
A. No, however, with the use of correct insulation and sleeving Ginde pipe can be installed outdoors.

Download the “Ginde Pex NZ” App from
Android Google Play or the iPhone App Store

Ginde Offers A 30 Year Warranty

Ginde warrants the Pex-Al-Pex pipe and fittings for water and gas, to be free from defects in material and workmanship. The limited warranty shall expire 30 years from the date of purchase, unless otherwise specified in writing.

Products sold under this limited warranty must:

1. Be installed according to applicable Ginde product manual/instructions using appropriate trade workmanship and according to the local building code(s).
2. Remain in their originally installed location.
3. Be applied for authorised applications and within authorised temperature and pressure limits, and
4. Show no evidence of tampering, mishandling, neglect, accidental damage, modification, or repair without the approval of Ginde. Damage caused by Acts of God or anyone other than Ginde.

Furthermore, Ginde warrants:

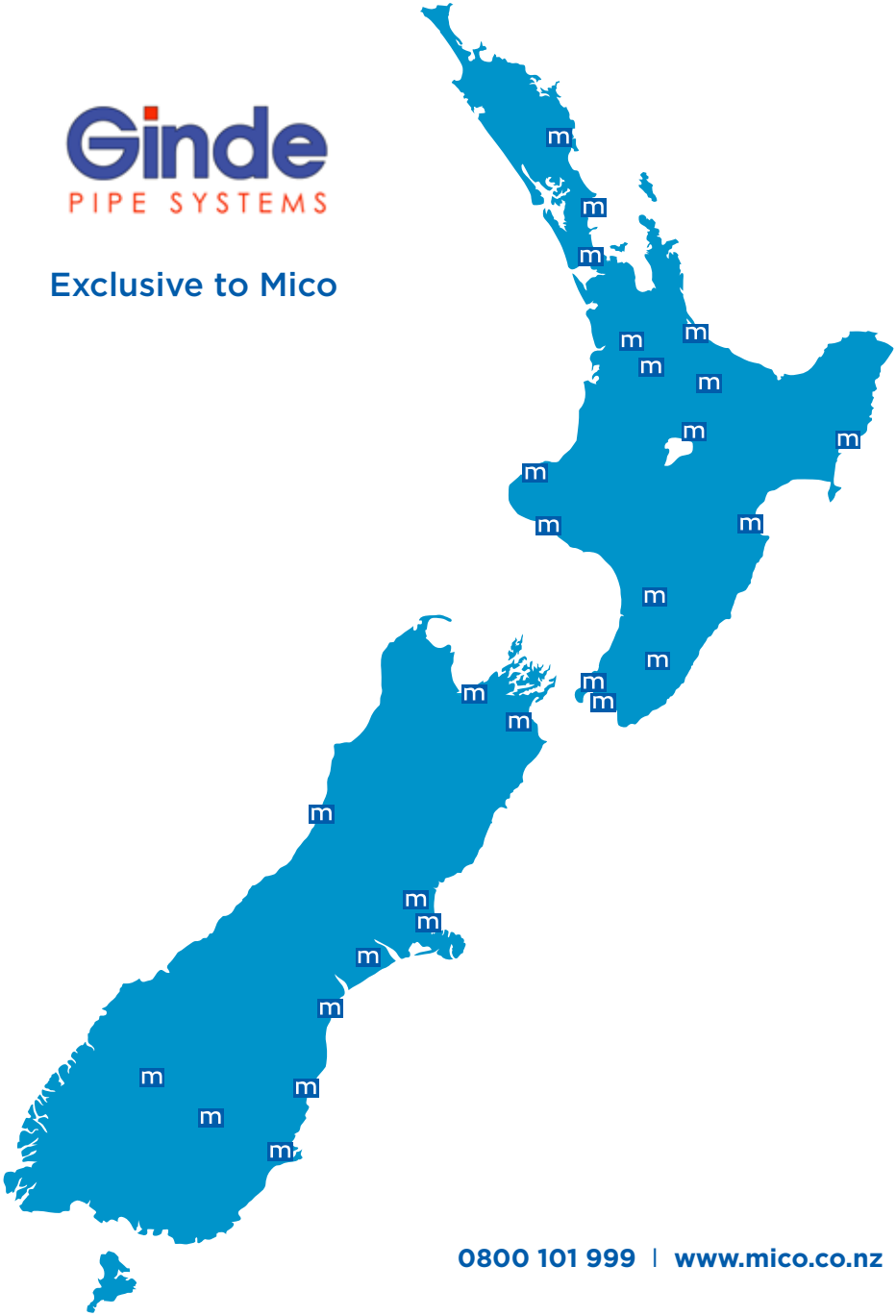
That Ginde crimp brass fittings, can be used on Rifeng Pex-Al-Pex and PexB pipes and Rifeng crimp brass fittings on Ginde Pex-Al-Pex and PexB pipes.

Ginde declares that any responsibility for losses incurred due to quality issues of pipe and/or fittings shall be carried by Ginde Company.

Issue Date: 10.09. 2013

Ginde
PIPE SYSTEMS

Exclusive to Mico



0800 101 999 | www.mico.co.nz

MICO Plumbing