



PPR PIPE & FITTINGS PLASTIC PIPING SYSTEM

CHINA ERA GROUP YONGGAO Co., Ltd.

version NUMBER 201901

















TEST CERTIFICATE

Certificate number: TC-J0299

Client: Liang Chew Hardware Pte Ltd

133 Kitchener Road Singapore 208517

Product: Polypropylene Pipes & Fittings

Brand / Model: ERA / PPR

Detail: Size (mm): 20, 25, 32, 40, 50, 63, 75, 90 & 110

Specification: ISO 15874-2: 2013, ISO 15874-3; 2013, ISO 15874-5:

2013, AS/NZS 4020: 2018, BS EN 12165: 2016, SS

375: 2015

Test Reports: 2121048/01-OYC, 2121048/02-OYC, 2121048/03-

OYC, 2020855/02-CPC, 2020855/01-CPC,

2020855/03-CPC

Summary

A sample of product submitted was tested and found to comply with the test requirements of the above standard(s).

Head, Certification

Singapore Test Lab Pte Ltd

Date of Original Issue: Date of Last Revision: Date of Expiry:

11 March 2022 - 10 March 2024

This Certificate is part of the listed full report(s) and should be read in conjunction with it. This Certificate remains the property of Singapore Test Lab Pte Ltd and shall be returned upon request. The use of this Certificate is subjected to the Terms and Conditions of Singapore Test Lab Pte Ltd.







SINGAPORE GREEN BUILDING PRODUCT CERTIFICATE

AWARDED TO

Liang Chew Hardware Pte Ltd

133 Kitchener Road Singapore 208517

FOR THE PRODUCT

Pipe & Fittings - Potable Water

PRODUCT BRAND

ERA

PRODUCT MODEL

Refer to Appendix

THE PRODUCT HAS BEEN ASSESSED ACCORDING TO THE ASSESSMENT CRITERIA OF SINGAPORE GREEN BUILDING PRODUCT CERTIFICATION SCHEME. IT HAS BEEN AWARDED THE RATING:



Director

SGBC Pte Ltd

Certificate Number Original Issue Date Revised Date Valid Till

SGBP 4062 09 June 2023 - 08 June 2025

√Good ✓√✓Very Good ✓√✓Excellent ✓√✓✓Leader
√√✓

The use and reliance on this certificate is subject to the terms and conditions of the Singapore Green Building Product Certification Scheme. Revised certificates may also be issued at the discretion of the Council. The certification status may be verified at the Singapore Green Building Council website (www.sgbc.sg).

SINGAPORE

BUILDING

GOOD



SINGAPORE GREEN BUILDING PRODUCT CERTIFICATE

Appendix

Certificate Number: SGBP 4062

Models

PIPPRPN10 (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm, 75mm, 90mm, 110mm); PIPPRPN20 (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm, 75mm, 90mm, 110mm); PPRE45 (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm, 75mm, 90mm, 110mm); PPRE90 (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm, 75mm, 90mm, 110mm); PPREC (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm, 75mm, 90mm, 110mm); PPRES (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm, 75mm, 90mm, 110mm); PPRBS (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm, 75mm, 90mm, 110mm); PPRBIS (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm); PPRU (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm); PPRBIS (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm); PPRBIE (DN 20mm, 25mm, 32mm); PPRFIE (DN 20mm, 25mm, 32mm); PPRBIT (DN 20mm, 25mm, 32mm); PPRBIT (DN 20mm, 25mm, 32mm); PPRBV (DN 20mm, 25mm, 32mm); PPRSV (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm); PPRCJ (DN 20mm, 25mm, 32mm, 40mm, 50mm, 63mm); PPRRSCB (DN 20mm, 25mm, 32mm); PPRRSCB (DN 20mm, 25mm, 32mm, 75mm, 90mm, 110mm)



PPR PIPE (PN10) For Cold Water PPR PIPE (PN20) For Hot Water Colour- Green

COMPLY WITH ISO 15874-2, 3 & 5





DIMENSIONS	$\Gamma \cap D$	חחח	DIDEC	DNI10
THINEINSICHAS	FUR	PPR	PIPES	PIVIU

SKU	Diameter D (mm)	Wall Thickness (mm)	WEIGHT (kg)
PIPPPR020PN10	20.0~20.3	2.3	0.51
PIPPPR025PN10	25.0~25.3	2.8	0.76
PIPPPR032PN10	32.0~32.3	3.6	1.23
PIPPPR040PN10	40.0~40.4	4.5	1.90
PIPPPR050PN10	50.0~50.5	5.6	2.96
PIPPPR063PN10	63.0~63.6	7.1	4.82
PIPPPR075PN10	75.0~75.7	8.4	6.66
PIPPPR090PN10	90.0~90.9	10.1	9.53
PIPPPR110PN10	110.0~111.0	12.3	14.32

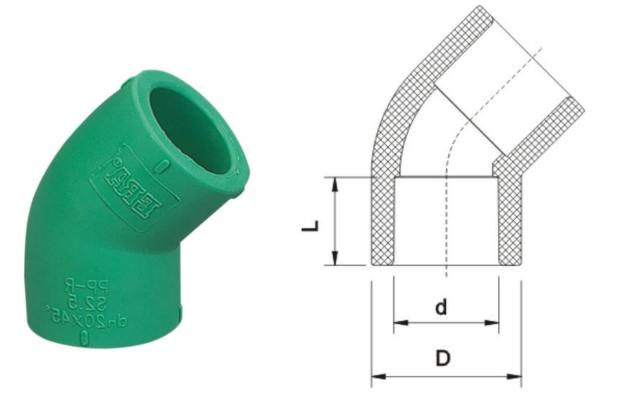
DIMENSIONS FOR PPR PIPES PN20

SKU	Diameter D (mm)	Wall Thickness (mm)	WEIGHT (kg)
PIPPPR020PN20	20.0~20.3	3.4	0.69
PIPPPR025PN20	25.0~25.3	4.2	1.04
PIPPPR032PN20	32.0~32.3	5.4	1.70
PIPPPR040PN20	40.0~40.4	6.7	2.62
PIPPPR050PN20	50.0~50.5	8.4	4.07
PIPPPR063PN20	63.0~63.6	10.5	6.42
PIPPPR075PN20	75.0~75.7	12.5	9.09
PIPPPR090PN20	90.0~90.9	15.0	13.05
PIPPPR110PN20	110.0~111.0	18.3	19.20



PPR 45° ELBOW Colour- Green





DIMENSIONS					
SKU	D (mm)	d (mm)	L (mm)	WEIGHT (kg)	PCS/CTN
PPRE45020	27.4	19.0	15.8	0.013	400
PPRE45025	34.8	24.0	18.1	0.022	250
PPRE45032	42.4	31.0	20.1	0.035	140
PPRE45040	52.1	38.8	22.1	0.060	80
PPRE45050	65.7	48.9	25.1	0.103	36
PPRE45063	83.1	61.7	28.0	0.189	36
PPRE45075	99.0	73.4	30.4	0.304	36
PPRE45090	119.6	88.8	35.1	0.502	16
PPRE45110	146.7	108.3	42.0	0.934	12

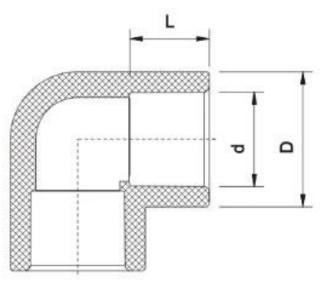


PPR 90° ELBOW Colour- Green COMPLY WITH ISO 15874-2, 3 & 5

SS 375







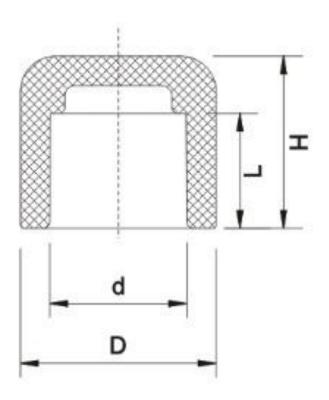
DIMENSIONS					
SKU	D (mm)	d (mm)	L (mm)	WEIGHT (kg)	PCS/CTN
PPRE90020	27.4	19.0	16.1	0.015	360
PPRE90025	34.4	24.0	18.1	0.029	200
PPRE90032	42.1	31.0	20.1	0.045	100
PPRE90040	52.6	38.8	21.7	0.077	70
PPRE90050	66.1	48.9	25.1	0.138	72
PPRE90063	83.1	61.7	28.4	0.259	60
PPRE90075	99.2	73.4	32.0	0.437	24
PPRE90090	119.0	88.8	36.0	0.707	12
PPRE90110	146.7	108.3	42.0	1.303	12



PPR END CAP Colour- Green COMPLY WITH ISO 15874-2, 3 & 5 SS 375





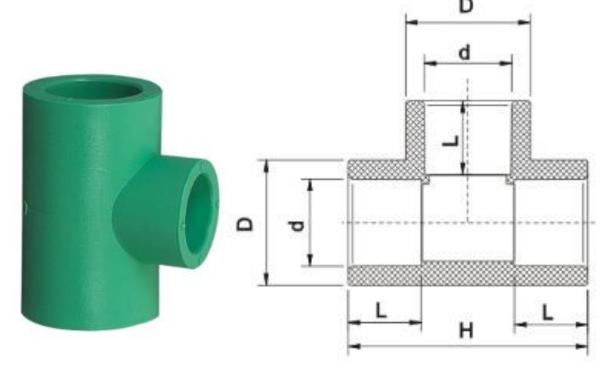


DIMENSIONS						
SKU	D (mm)	d (mm)	L (mm)	H (mm)	Weight (kg)	PCS/CTN
PPREC020	27.4	19.0	16.1	24.3	0.007	850
PPREC025	34.8	24.0	18.1	24.7	0.012	500
PPREC032	42.6	30.9	20.1	30.2	0.020	280
PPREC040	52.5	38.8	22.1	31.2	0.033	190
PPREC050	66.1	48.9	25.1	35.3	0.058	144
PPREC063	82.7	61.7	28.7	41.4	0.108	60
PPREC075	99.2	73.4	34.2	53.2	0.205	36
PPREC090	119.2	88.8	38.0	64.2	0.334	18
PPREC110	145.8	108.3	46.7	69.8	0.533	18



PPR EQUAL TEE Colour- Green





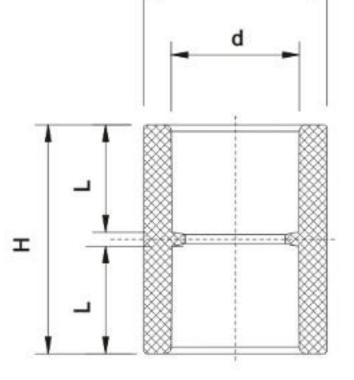
DIMENSIONS						
SKU	D (mm)	d (mm)	L (mm)	H (mm)	Weight (kg)	PCS/CTN
PPRET020	27.9	19.0	16.1	53.0	0.019	250
PPRET025	34.8	24.0	18.1	63.0	0.035	140
PPRET032	42.4	30.9	20.1	74.0	0.055	80
PPRET040	52.6	38.8	22.1	85.3	0.092	50
PPRET050	66.1	48.9	25.1	100.7	0.168	40
PPRET063	83.1	61.7	29.1	121.7	0.299	24
PPRET075	99.2	73.4	32.0	141.7	0.501	24
PPRET090	120.0	88.8	36.0	168.3	0.858	8
PPRET110	146.0	108.3	42.0	197.4	1.524	6



PPR EQUAL SOCKET Colour- Green







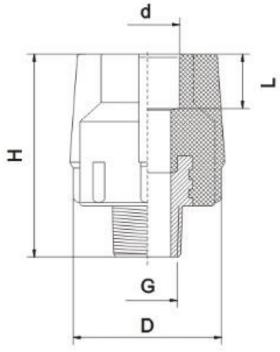
DIMENSIONS						
SKU	D (mm)	d (mm)	L (mm)	H (mm)	Weight (kg)	PCS/CTN
PPRES020	27.4	19.0	15.7	34.3	0.009	550
PPRES025	34.8	24.0	17.5	38.0	0.017	300
PPRES032	42.4	30.9	19.2	41.8	0.024	200
PPRES040	52.5	38.8	22.1	47.3	0.042	120
PPRES050	66.3	48.9	25.1	53.8	0.072	120
PPRES063	83.3	61.7	29.1	61.3	0.130	96
PPRES075	99.2	73.4	32.0	68.4	0.212	45
PPRES090	119.0	88.8	36.0	77.0	0.348	36
PPRES110	147.0	108.3	42.0	89.8	0.625	18



PPR MI SOCKET Colour- Green Type of metal – DZR Brass





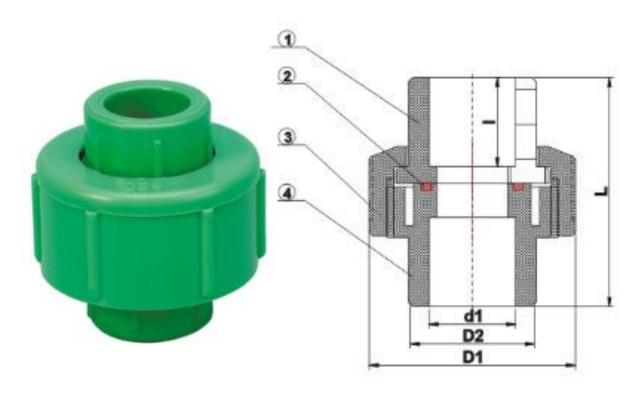


DIMENSIONS							
SKU	D (mm)	d (mm)	G (mm)	L (mm)	H (mm)	Weight (kg)	PCS/CTN
PPRMIS02015	44.0	19.0	1/2"	16.1	61.7	0.083	160
PPRMIS02020	48.7	19.0	3/4"	16.1	62.0	0.114	120
PPRMIS02515	44.0	24.0	1/2"	18.1	62.0	0.086	160
PPRMIS02520	49.0	24.0	3/4"	18.1	61.5	0.110	120
PPRMIS03215	46.4	30.5	1/2"	20.1	64.0	0.094	120
PPRMIS03220	49.1	30.5	3/4"	20.1	62.0	0.110	120
PPRMIS03225	64.4	30.9	1"	20.1	78.3	0.254	60
PPRMIS04035	76.8	38.8	11/4"	22.1	93.5	0.387	30
PPRMIS05042	86.0	48.9	11/2"	25.1	94.4	0.492	24
PPRMIS06350	95.0	61.7	2"	29.1	112.0	0.712	24
PPRMIS07565	116.7	73.4	21/2"	32.0	119.0	1.034	12
PPRMIS09080	135.4	88.8	3"	36.0	135.0	1.511	12
PPRMIS110100	166.0	108.3	4"	42.0	155.8	2.539	4



PPR UNION Colour- Green





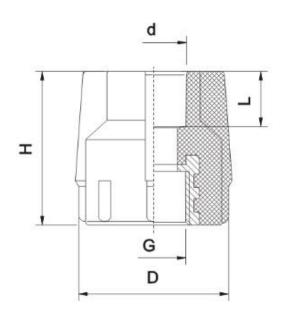
DIMENSIONS							
SKU	D1 (mm)	D2 (mm)	d1 (mm)	l (mm)	L (mm)	Weight (kg)	PCS/CTN
PPRU020	47.7	28.3	19.0/20.8/21.2	22.5	58.7	0.035	150
PPRU025	57.3	34.8	24.0/25.2/25.8	24.0	64.2	0.055	100
PPRU032	68.2	42.4	30.9/32.6/33.0	27.4	71.2	0.087	60
PPRU040	82.2	52.0	38.8/40.9	31.0	86.4	0.147	72
PPRU050	98.3	61.5	46.9/48.9	34.0	90.5	0.207	45
PPRU063	120	75.8	58.5/61.7	38.6	107.0	0.371	24



PPR FI SOCKET Colour- Green Type of metal - DZR Brass







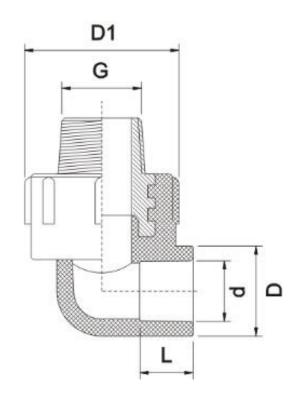
DIMENSIONS							
SKU	D (mm)	d (mm)	G (mm)	L (mm)	H (mm)	Weight (kg)	PCS/CTN
PPRFIS02015	43.6	19.0	1/2"	16.1	45.9	0.063	200
PPRFIS02020	49.0	19.0	3/4"	16.1	46.3	0.087	160
PPRFIS02515	43.6	24.0	1/2"	19.2	45.4	0.065	190
PPRFIS02520	49.5	24.0	3/4"	17.8	45.6	0.086	150
PPRFIS03215	46.8	30.5	1/2"	21.0	46.7	0.074	150
PPRFIS03220	48.8	30.5	3/4"	20.7	47.4	0.086	120
PPRFIS03225	64.4	30.9	1"	20.1	58.3	0.225	75
PPRFIS04035	76.8	38.8	11/4"	22.1	71.5	0.345	40
PPRFIS05042	86.0	48.9	11/2"	25.1	71.5	0.472	24
PPRFIS06350	95.0	61.7	2"	29.1	94.5	0.615	24
PPRFIS07565	116.7	73.4	21/2"	32.0	92.0	0.862	12
PPRFIS09080	135.4	88.8	3"	36.0	105.0	1.364	8
PPRFIS110100	116.0	108.3	4"	42.0	119.8	2.438	8



PPR MI ELBOW Colour- Green Type of metal - DZR Brass







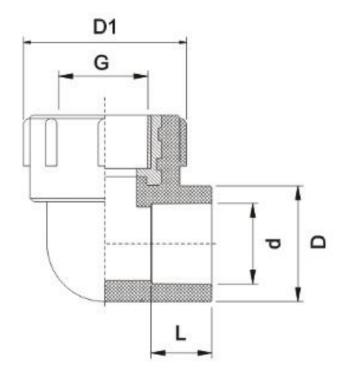
DIMENSIONS							
SKU	D (mm)	d (mm)	G (mm)	L (mm)	D1 (mm)	Weight (kg)	PCS/CTN
PPRMIE02015	28.1	19.0	1/2"	16.1	43.5	0.086	160
PPRMIE02020	27.4	18.2	3/4"	16.2	47.0	0.108	120
PPRMIE02515	34.8	24.0	1/2"	18.1	44.0	0.101	120
PPRMIE02520	34.8	24.0	3/4"	18.1	49.0	0.124	100
PPRMIE03215	43.0	30.4	1/2"	20.2	48.6	0.117	80
PPRMIE03220	43.0	30.4	3/4"	20.2	49.0	0.136	80
PPRMIE03225	42.4	30.4	1"	20.8	65.1	0.272	40



PPR FI ELBOW Colour- Green Type of metal - DZR Brass







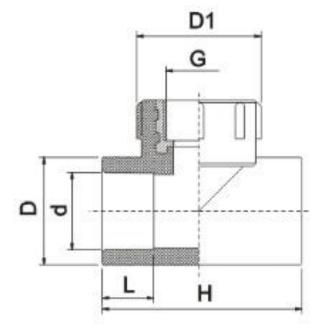
DIMENSIONS							
SKU	D (mm)	d (mm)	G (mm)	L (mm)	D1 (mm)	Weight (kg)	PCS/CTN
PPRFIE02015	27.4	19.0	1/2"	16.1	43.5	0.066	200
PPRFIE02020	28.0	18.6	3/4"	16.2	47.0	0.088	160
PPRFIE02515	34.8	24.0	1/2"	18.1	44.0	0.079	150
PPRFIE02520	34.8	24.0	3/4"	18.1	49.0	0.100	120
PPRFIE03215	42.6	30.6	1/2"	20.1	49.7	0.100	100
PPRFIE03220	42.6	30.6	3/4"	20.1	48.3	0.113	80
PPRFIE03225	42.6	30.6	1"	20.6	65.0	0.241	60



PPR FI TEE Colour- Green Type of metal - DZR Brass



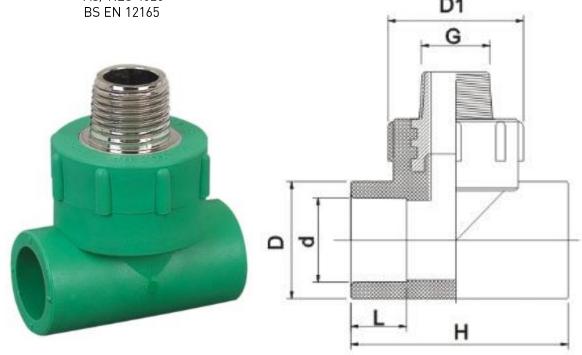




DIMENSIONS								
SKU	D (mm)	d (mm)	L (mm)	G (mm)	H (mm)	D1 (mm)	Weight (kg)	PCS/CTN
PPRFIT02015	27.4	19.0	16.1	1/2"	56.0	43.6	0.070	160
PPRFIT02020	27.8	19.0	16.2	3/4"	62.0	47.0	0.092	120
PPRFIT02515	34.8	24.0	18.1	1/2"	64.2	44.0	0.084	120
PPRFIT02520	34.8	24.0	18.1	3/4"	64.2	49.0	0.105	100
PPRFIT03215	42.8	30.4	20.2	1/2"	70.0	46.4	0.114	80
PPRFIT03220	42.4	30.4	20.1	3/4"	76.0	49.0	0.125	70
PPRFIT03225	42.8	30.4	20.6	1"	81.2	64.5	0.242	50



PPR MI TEE Colour- Green Type of metal – DZR Brass



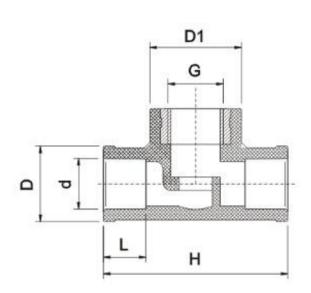
DIMENSIONS								
SKU	D (mm)	d (mm)	L (mm)	G (mm)	H (mm)	D1 (mm)	Weight (kg)	PCS/CTN
PPRMIT02015	27.9	19.0	16.1	1/2"	56.4	43.5	0.089	120
PPRMIT02020	27.4	19.0	16.1	3/4"	62.0	47.0	0.111	120
PPRMIT02515	35.2	24.0	18.1	1/2"	64.2	44.0	0.100	100
PPRMIT02520	35.2	24.0	18.1	3/4"	64.2	49.0	0.128	80
PPRMIT03215	42.6	30.2	20.2	1/2"	70.0	46.4	0.121	60
PPRMIT03220	42.6	30.2	20.2	3/4"	76.5	49.0	0.148	60
PPRMIT03225	42.6	30.9	21.2	1"	81.2	65.1	0.287	40



PPR STOP VALVE WITH CHROME HANDLE Colour- Green Type of metal – DZR Brass





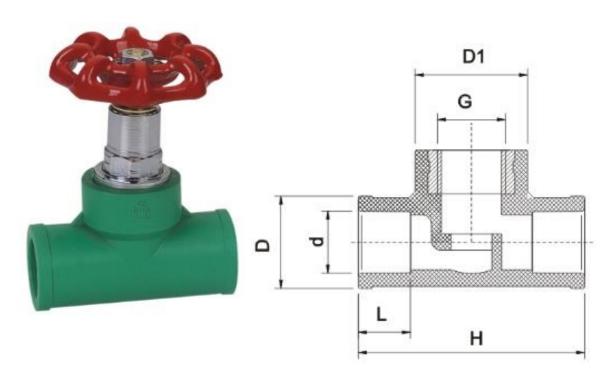


DIMENSIONS								
SKU	D (mm)	d (mm)	L (mm)	G (mm)	H (mm)	D1 (mm)	Weight (kg)	PCS/CTN
PPRSV020CP	29.0	19.0	16.1	1/2"	70.7	34.8	0.268	48
PPRSV025CP	36.8	24.0	18.1	3/4"	83.0	44.7	0.377	48
PPRSV032CP	43.4	30.9	20.1	3/4"	86.5	45.2	0.393	36



PPR STOP VALVE Colour- Green Type of metal – DZR Brass



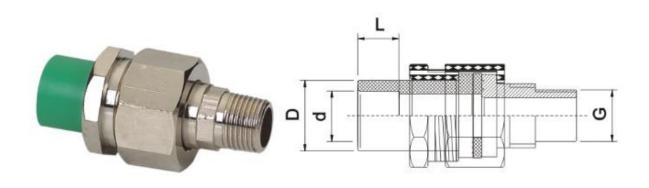


DIMENSIONS								
SKU	D (mm)	d (mm)	L (mm)	G (mm)	H (mm)	D1 (mm)	Weight (kg)	PCS/CTN
PPRSV020	29.0	19.0	16.1	1/2"	70.7	34.8	0.157	48
PPRSV025	36.8	24.0	18.1	3/4"	83.0	44.7	0.282	48
PPRSV032	43.4	30.9	20.1	3/4"	86.5	45.2	0.300	32
PPRSV040	55.6	38.6	22.5	1"	97.4	55.5	0.421	30
PPRSV050	70.1	48.9	25.5	1 1/4"	121.6	66.3	0.689	24
PPRSV063	87.1	61.7	28.7	1 1/2"	133.1	74.8	0.969	24
PPRSV075	103.2	73.4	32.0	2 1/4"	167.6	98.0	1.856	8
PPRSV090	123.6	88.8	36.0	2 3/4"	201.9	118.0	3.109	4
PPRSV110	149.5	107.5	42.0	3 1/2"	245.6	147.0	5.122	2



PPR COMBINING JOINT Colour- Green Type of metal – DZR Brass



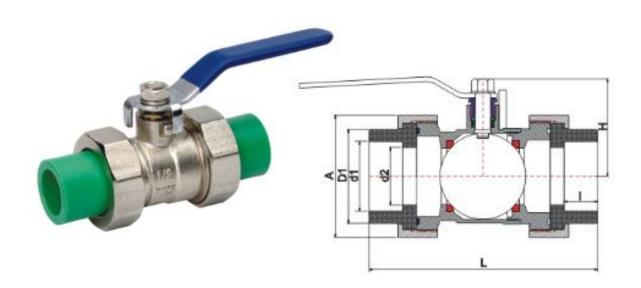


DIMENSIONS											
SKU	D (mm)	d (mm)	L (mm)	G (mm)	WEIGHT (kg)	PCS/CTN					
PPRCJ02015	27.4	19.0	16.1	1/2"	0.243	125					
PPRCJ02520	34.8	24.0	18.1	3/4"	0.326	90					
PPRCJ03225	42.4	30.9	20.1	1"	0.726	60					



PPR BALL COCK Colour- Green Type of metal - DZR Brass





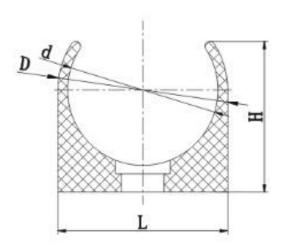
DIMENSIONS	6								
SKU	D1 (mm)	d1 (mm)	d2 (mm)	l (mm)	L (mm)	H (mm)	A (mm)	Weight (kg)	PCS/CTN
PPRBV020	27.4	19.0	15.0	19.0	92.8	37.5	40.5	0.233	80
PPRBV025	34.8	24.0	20.0	19.0	101.2	45.2	48.4	0.337	64
PPRBV032	42.4	30.9	26.9	21.0	114.5	51.7	57.3	0.541	32
PPRBV040	52.6	38.8	32.0	22.7	144.1	62.0	75.1	0.940	16
PPRBV050	66.1	48.9	42.0	25.7	175.8	69.8	92.7	1.680	12
PPRBV063	83.0	61.7	51.0	29.7	202.8	86.25	108.0	2.020	8



PPR U-PIPE TRACKET Colour- Green







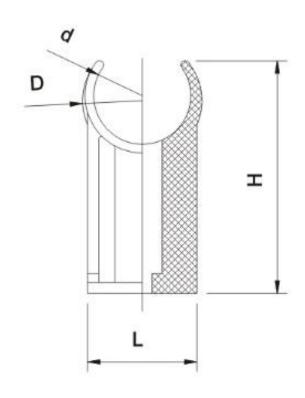
DIMENSIONS	· •					
SKU	D (mm)	d (mm)	L (mm)	H (mm)	Weight (kg)	PCS/CTN
PPRUC020	24.7	20.0	24.7	25.0	0.006	1800
PPRUC025	30.1	25.0	30.1	29.0	0.006	1200
PPRUC032	36.8	32.0	36.8	32.6	0.008	800
PPRUC040	45.5	40.0	45.5	40.5	0.014	400
PPRUC050	55.9	50.0	55.9	49.5	0.020	280



PPR U-PIPE TRACKET Colour- Green





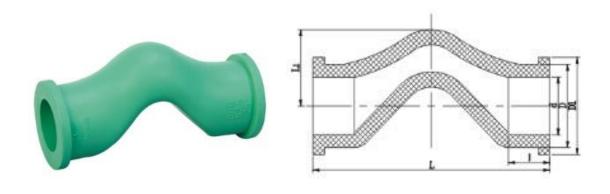


DIMENSIONS	,					
SKU	D (mm)	d (mm)	L (mm)	H (mm)	Weight (kg)	PCS/CTN
PPRUC020H	24.0	19.5	22.0	46.8	0.007	900
PPRUC025H	32.8	24.5	29.8	52.4	0.011	600
PPRUC032H	40.5	31.5	37.0	57.0	0.008	350
PPRUC040H	50.0	39.5	40.3	64.0	0.022	240
PPRUC050H	61.2	49.5	44.0	69.8	0.028	160
PPRUC063H	77.0	62.5	60.0	80.0	0.045	120



PPR CROSS BEND Colour- Green





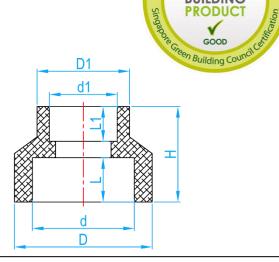
DIMENSIONS								_
SKU	D1 (mm)	D (mm)	d (mm)	l (mm)	L1 (mm)	L (mm)	Weight (kg)	PCS/CTN
PPRSCB020	32.3	28.0	19.0	15.3	27.4	82.3	0.062	108
PPRSCB025	40.7	34.8	24.0	17.3	32.0	99.2	0.094	70
PPRSCB032	49.2	43.5	30.9	19.9	40.2	118.4	0.146	42



PPR REDUCING SOCKET Colour- Green

COMPLY WITH ISO 15874-2, 3 & 5 SS 375





SINGAPORE

BUILDING

DIMENSIONS									
SKU	D (mm)	d (mm)	L (mm)	D1 (mm)	d1 (mm)	L1 (mm)	H (mm)	Weight (kg)	PCS/CTN
PPRRS02520	34.8	24.0	18.1	27.4	19.0	16.1	34.4	0.014	400
PPRRS03220	42.4	30.9	20.1	27.4	19.0	16.1	38.0	0.020	260
PPRRS03225	42.4	30.9	20.1	34.8	24.0	17.4	39.6	0.021	240
PPRRS04020	52.6	38.8	22.1	27.4	19.0	16.1	50.0	0.030	140
PPRRS04025	52.6	38.8	22.1	34.8	24.0	18.1	49.6	0.035	140
PPRRS04032	52.6	38.8	22.1	42.4	30.9	20.1	44.3	0.032	140
PPRRS05020	66.0	48.9	25.1	27.4	19.0	16.1	55.9	0.056	144
PPRRS05025	66.0	48.9	25.1	34.8	24.0	18.1	57.0	0.057	144
PPRRS05032	66.0	48.9	25.1	42.4	30.9	20.1	56.0	0.062	144
PPRRS05040	66.0	48.9	25.1	52.6	38.8	22.1	50.2	0.059	96
PPRRS06325	82.7	61.7	29.1	34.8	24.0	18.1	62.7	0.106	120
PPRRS06332	82.7	61.7	29.1	42.4	30.9	20.1	63.4	0.099	120
PPRRS06340	82.7	61.7	29.1	53.0	38.8	22.1	63.3	0.112	120
PPRRS06350	82.7	61.7	29.1	66.7	48.9	25.1	56.7	0.112	96
PPRRS07540	99.2	73.4	32.0	53.2	38.8	22.1	69.0	0.175	75
PPRRS07550	99.2	73.4	32.0	66.6	48.9	25.1	69.0	0.187	75
PPRRS07563	99.2	73.4	32.0	83.1	61.7	29.1	66.5	0.189	45
PPRRS09050	119.0	88.8	36.0	66.8	48.9	25.1	78.5	0.285	60
PPRRS09063	119.6	88.8	39.0	83.1	61.7	29.1	82.7	0.299	48
PPRRS09075	119.6	88.8	39.0	99.2	73.4	32.0	74.8	0.316	36
PPRRS11063	145.5	108.3	42.0	84.4	61.7	30.0	91.0	0.527	24
PPRRS11075	145.5	108.3	42.0	100.0	73.4	32.0	91.4	0.546	24
PPRRS11090	146.0	108.3	42.0	121.0	88.8	37.0	82.0	0.528	18







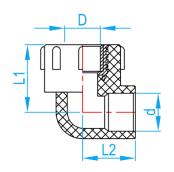


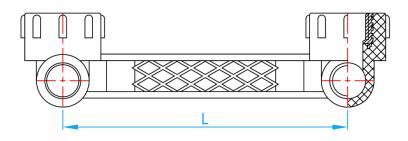
PPR DOUBLE FEMALE THREADED ELBOW FOR SHOWER MIXER

Colour- Green









DIMENSIONS							
SKU	D (mm)	d (mm)	L1 (mm)	L2 (mm)	L (mm)	Weight (kg)	PCS/CTN
PPRFE02015S	G 1/2"	20	35.6	27.8	150	0.157	40



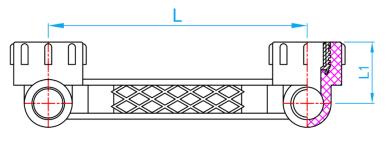


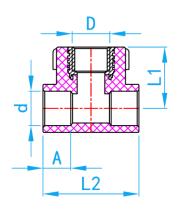
PIPE

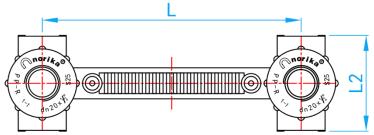












DIMENSIONS								
SKU	D (mm)	d (mm)	A (mm)	L1 (mm)	L2 (mm)	L (mm)	Weight (kg)	PCS/CTN
PPRFT02015S	G 1/2"	20.0	16.1	35.6	55.6	150	0.163	30





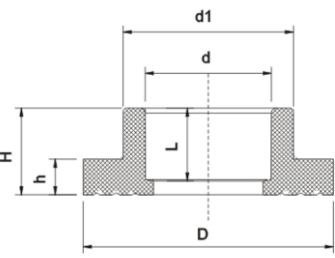




PPR FLANGE SOCKET Colour- Green







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SKU	D (mm)	d (mm)	d1 (mm)	L (mm)	H (mm)	h (mm)	Weight (kg)	PCS/CTN
PPRFLS040	77.3	38.8	52.6	22.2	26.8	11.4	0.048	72
PPRFLS050	86.6	48.9	66.7	24.3	30.0	13.0	0.072	72
PPRFLS063	99.8	61.7	83.1	28.7	33.7	14.3	0.103	72
PPRFLS075	121.6	73.4	99.9	31.5	36.7	16.8	0.171	72
PPRFLS090	140.5	88.8	120.8	36.0	41.6	18.3	0.259	30
PPRFLS110	166.6	107.5	146.4	42.0	48.2	20.1	0.416	30

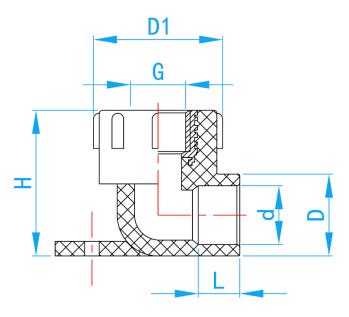




PPR FI ELBOW WITH BRACKET Colour- Green







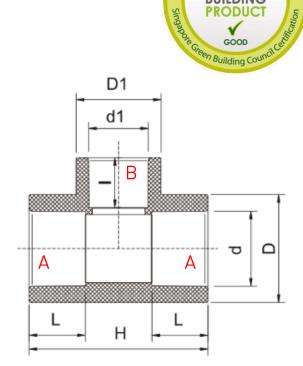
DIMENSIONS	ò							
SKU	D (mm)	d (mm)	G (mm)	L (mm)	H (mm)	D1 (mm)	Weight (kg)	PCS/CTN
PPRFE02015	27.4	19.0	1/2"	16.1	49.3	43.0	0.081	120



PPR REDUCING TEE Colour- Green

COMPLY WITH ISO 15874-2, 3 & 5 SS 375





SINGAPORE GREEN BUILDING

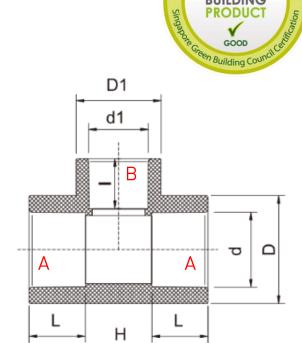
DIMENSIONS										
SKU	A×B	D (mm)	D1 (mm)	d (mm)	d1 (mm)	L (mm)	l (mm)	H (mm)	Weight (kg)	PCS/CTN
PPRRT02520	25×20	34.8	27.4	24.0	19.0	18.1	16.1	57.70	0.030	160
PPRRT03220	32×20	42.4	27.4	30.9	19.0	20.1	16.1	62.20	0.041	110
PPRRT03225	32×25	42.4	34.8	30.9	24.0	20.1	17.5	67.30	0.047	90
PPRRT04020	40×20	52.6	28.0	38.8	19.0	22.1	16.1	65.80	0.061	75
PPRRT04025	40×25	52.6	35.3	38.8	24.0	22.1	18.1	70.80	0.072	70
PPRRT04032	40×32	52.6	42.4	38.8	30.9	22.1	21.2	81.00	0.086	55
PPRRT05020	50×20	66.1	28.2	48.9	19.0	25.1	16.0	75.20	0.106	72
PPRRT05025	50×25	66.1	35.4	48.9	24.0	25.1	18.1	77.00	0.111	72
PPRRT05032	50×32	66.1	42.8	48.9	30.9	25.1	20.1	83.40	0.122	72
PPRRT05040	50×40	66.1	53.0	48.9	38.8	25.1	22.1	94.70	0.145	32
PPRRT06320	63×20	83.1	28.0	61.7	19.0	29.1	18.1	83.40	0.179	72
PPRRT06325	63×25	83.1	35.4	61.7	24.0	29.1	18.1	84.40	0.187	36
PPRRT06332	63×32	83.1	42.4	61.7	30.9	29.1	20.1	91.23	0.202	24
PPRRT06340	63×40	83.1	52.6	61.7	38.8	29.1	22.1	103.00	0.231	24
PPRRT06350	63×50	83.1	66.1	61.7	48.9	29.1	25.1	112.60	0.261	24



PPR REDUCING TEE Colour- Green

COMPLY WITH ISO 15874-2, 3 & 5 SS 375





SINGAPORE GREEN BUILDING

DIMENSIONS										
SKU	A×B	D (mm)	D1 (mm)	d (mm)	d1 (mm)	L (mm)	l (mm)	H (mm)	Weight (kg)	PCS/CTN
PPRRT07532	75×32	99.2	42.4	73.4	30.9	32.0	20.9	97.80	0.315	24
PPRRT07540	75×40	100.3	53.2	73.4	38.8	32.0	22.1	106.70	0.350	24
PPRRT07550	75×50	99.2	66.1	73.4	48.9	32.0	25.1	119.90	0.387	24
PPRRT07563	75×63	99.2	83.1	73.4	61.7	31.1	29.1	130.00	0.440	24
PPRRT09040	90×40	119.6	53.4	88.8	38.8	36.0	22.1	114.20	0.513	24
PPRRT09050	90×50	120.6	66.6	88.8	48.9	36.0	25.1	126.50	0.582	24
PPRRT09063	90×63	120.6	84.2	88.8	61.7	36.0	29.1	124.20	0.675	24
PPRRT09075	90×75	120.6	99.2	88.8	73.4	36.0	32.1	145.90	0.739	24
PPRRT11050	110×50	147.5	67.6	107.5	48.9	42.0	26.1	138.20	0.937	12
PPRRT11063	110×63	147.5	84.1	107.5	61.7	42.0	30.0	151.00	1.017	12
PPRRT11075	110×75	147.8	99.9	107.5	73.4	42.0	32.0	162.40	1.137	12
PPRRT11090	110×90	146.2	119.6	107.5	88.8	42.0	36.0	178.00	1.262	12

ERA PPR PIPES

Projected Service Life

The following table provides more detailed information with regards to the permissible pressure of various pipe pressure rating at various temperatures. These values are derived from the hoop stress chart an formula.

Under normal working pressures and conditions, the average service life of ERA pipes is projected to be 50 years or more.

Examples:

A PN20 hot water pipe, transporting water at a temperature of 70°C can last for more than 25 years under normal conditions with an operating pressure of 4.8bars or 69psi.

emperature	Service life in years	PN10 (bars)	PN20 (bars
	1	16.8	33.6
	5	15.6	31.2
10°C	10	15.0	30.0
	25	14.2	28.4
	50	13.8	27.6
	1	13.6	27.2
	5	12.6	25.2
20°C	10	12.4	24.8
	25	11.6	23.6
	50	10.0	20.0
	1	10.8	21.6
-	5	10.0	20.0
30°C	10	9.6	19.2
	25	9.2	18.4
	50	9.0	18.0
40°C	1	8.4	16.8
	5	8.0	16.0
	10	7.6	15.2
	25	7.2	14.4
	50	6.6	13.2
	1	7.0	14.0
	5	6.2	12.4
50°C	10	6.0	12.0
	25	5.2	10.4
	50	4.6	9.2
	1	5.6	11.2
	5	5.0	10.0
60°C	10	4.4	8.8
	25	3.6	7.2
	50	3.2	6.4
	1	4.4	8.8
7000	5	3.4	6.8
70°C –	10	3.0	6.0
	25	2.4	4.8
	1	3.4	6.8
0000	5	2.4	4.8
80°C	10	2.0	4.0
	20	1.8	3.6
	1	2.0	4.0
95°C	5	1.4	2.8
	10	1.2	2.4