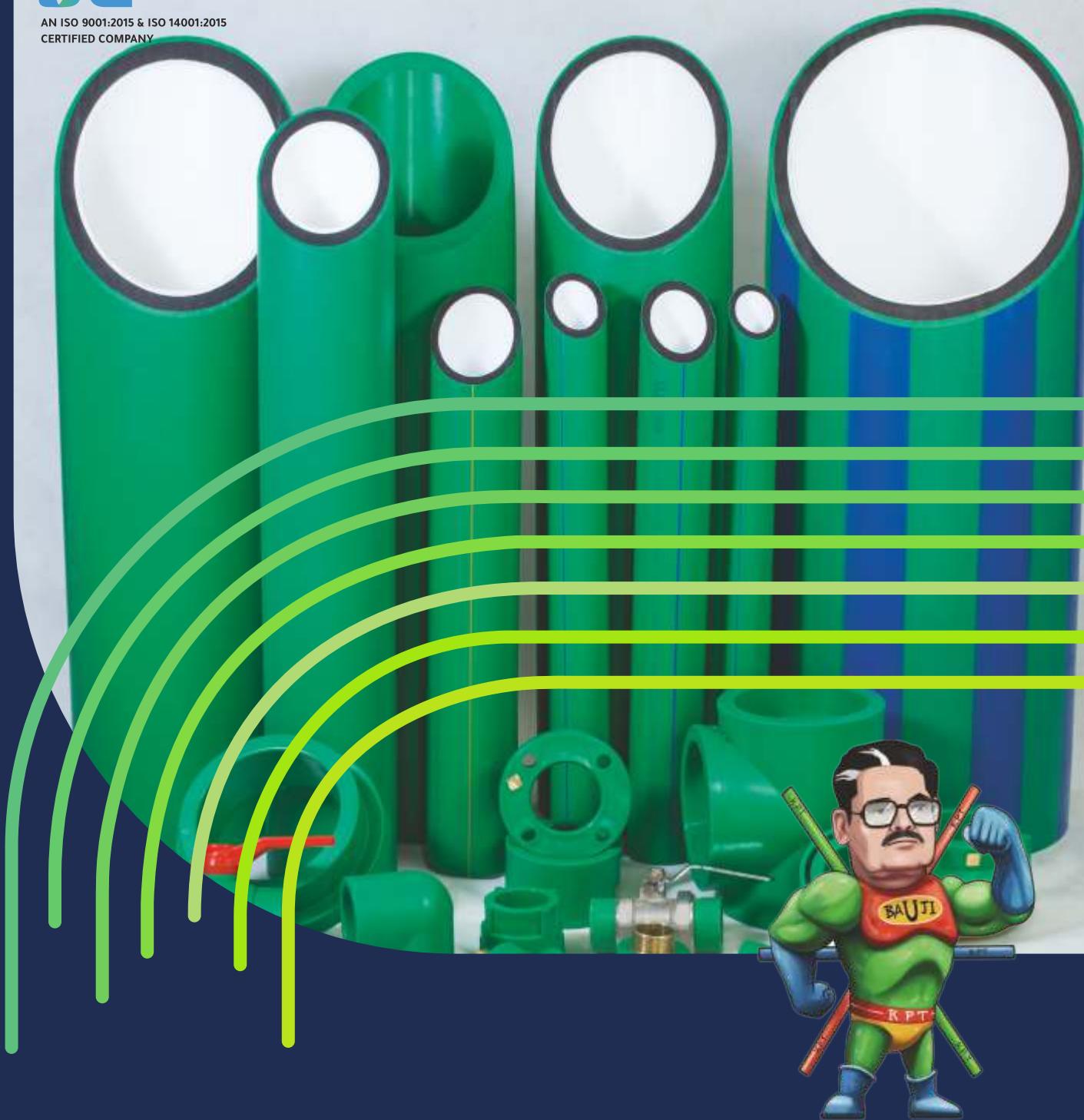




AN ISO 9001:2015 & ISO 14001:2015
CERTIFIED COMPANY



green  therm™

PPR-C Pipes and Fittings

An Eco-Friendly & 100% Food Grade
PPR-Piping System with the best in class
applications for Residential, Industrial &
Commercial segment for HOT & COLD
water applications

Leaders in India to have PPR-C range from 16 mm to 400 mm



Technical Information

Polypropylene Random Copolymer

Why choose this type of material?

The thermoplastic resins most often used to make pipes for water and heating systems are:

- PE-X cross linked polyethylene
- PP-C copolymer polypropylene
- PB polibutene

All the above - mentioned resins belong to the polyolephine family, a group of plastic materials obtained by polymerization of unsaturated hydrocarbons, which have one or more double links.

In a conventional polymer the molecular chains are irregularly placed; they have fairly good mobility, heat causes oscillation in these chains until they break, resulting in alteration of the material's characteristics. Two ways of preventing this problem have been tested.

Researchers have selected polymers with long molecular chains because, as molecular weight increases, the mechanical characteristics of manufactured items improve; these chains must be as linear as possible, i.e. they must show a low number of ramifications and a high degree of crystallization by extrusion these chains are submitted to stretch, allowing crystallization of a further percentage.

Isotactic polymers show much better mechanical characteristics as compared to their correspondent amorphous polymers; they maintain their properties up to temperatures close to melting point. This describes the nature of polypropylene techno-polymers in a simple way.

The other way tested by researchers is creation of chemical links among molecular chains in order to make them much steadier and avoid their sliding. This procedure has been adopted for the cross linking of polyethylene- PE- X.

There is a very big production of PP copolymers it is therefore important that fitness of raw material used be proven; it must be suitable to bear the thermo mechanical stresses required of it in operation for a long time (50 years).

Thus it is guaranteed that goods manufactured have high mechanical properties; it has been stabilized with appropriate anti-oxidants to postpone the combined effects of pressure and temperature for a very long time.

PROPERTY OF RAW MATERIAL

KPT- PPR Plumbing Pipe system is made from Basel & Hyosung materials which are considered as one of the best PPR-C material all over the world, a Random Copolymer Polypropylene (PPR-C) approved for the production of pipes and fittings according to DIN 8078 & DIN 16962 standards. Hyosung PPR Raw material is a thermoplastic resin which is transformed in to the finished product by a rise in temperature, which plasticises the material, allowing the pipe to be produced by means of EXTRUSION, and the fittings by MOULDING. The raw material is supplied in granules precolored. Special heat resistance is one of the features of this material, Its physical and chemical properties are well suited to the transfer of potable water and in the heating sector. Depending on pressure it is possible to use KPT - pipes for constant temperatures up to 70°C with service life of more than 50 years. Peak temperatures of 100°C arising from short disruptions are not creating any problems.

Advantages of KPT PPR-C Piping System

KPT pipes and fittings are made from polypropylene random co polymer specially developed for this use. Its characteristic make it suitable for both Industrial and Commercial applications with outstanding reliability over time.

One special feature of the KPT PPR-C pipe system is the assembly technique, in which the parts to be connected are welded by melting and fusion. After fusion welding, the pipe and fittings form a single continuous body with none of the problems, which may derive from potential leakage points. This makes the joints as PERMANENT. No sealants or adhesives are required for these permanent connections.

Special Features of KPT PPR-C Piping System

Anti Corrosive & Chemical Resistant - Chemically inert and highly resistant to wide range of acid bases. Suitable for highly corrosive areas and industrial cooling water, drinking water system.

Withstanding High Pressure - Pipes and fittings can withstand up to 20 kg/sqcm pressure. Suitable for high pressure application like Compressed Air Lines.

Low Pressure Drop - Because of the very smooth non porous inner surface of pipes and fittings the pressure loss is less than metallic pipes, which results saving of pumping energy considerably.

Withstanding Higher Temperature - Can withstand upto 95°C. Best pipe for heated water transport in solar applications.

Hygienic & Harmlessness - KPT PPR-C pipes are certified as food grade pipes as per DIN 1998 T2. Best piping system for drinking water, RO plants and DM Plants.

Low Thermal Conductivity - The material's high level of thermal insulation guarantees low heat loss on the part of fluid transport. (0.24 W/mK)

Low Noise - Having high sound insulation value, results in lower noise level at the time of high velocity flow.

Non Toxic - Recyclable - Unlike PVC pipes, KPT PPR-C pipes are non toxic at the time of fire. PPR-C is recyclable material.

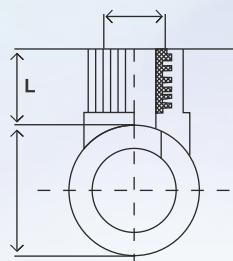
High Impact Rate - KPT PPR-C pipes are having high impact strength compare to any plastic pipe.

Low Flammability - KPT PPR-C pipes and fittings comply with fire classification B2 (normal inflammable). In case of fire no toxic emission to atmosphere like PVC pipes.

Resistant to stray electrical current - Thanks to high electrical insulating properties, KPT PPR-C pipe system is unaffected by stray currents

Like SS Pipe - The characters of KPT PPR-C piping system is almost like SS. KPT PPR-C pipes will have more advantage than SS for the specific application requirements.

WELD IN SADDLE FEMALE THREADED COUPLING

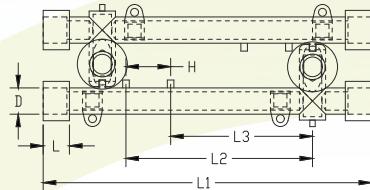


CODE	SIZE	THREADS	L	L1	H
KPT WIS M-0367	160*1/2	1/2"	16.3	49.2	41.3
KPT WIS M-0368	110*1/2	1/2"	16.3	49.2	41.3
KPT WIS M-0369	90*1/2	1/2"	16.3	49.2	41.3
KPT WIS M-0370	75*1/2	1/2"	16.3	49.2	41.3
KPT WIS M-0371	63*1/2	1/2"	16.3	49.2	41.3
KPT WIS M-0372	160*3/4	3/4"	16.0	49.1	41.3
KPT WIS M-0373	110*3/4	3/4"	16.0	49.1	41.3
KPT WIS M-0374	90*3/4	3/4"	16.0	49.1	41.3
KPT WIS M-0375	75*3/4	3/4"	16.0	49.1	41.3
KPT WIS M-0376	63*3/4	3/4"	16.0	49.1	41.3

DOUBLE BATTERY TAP CONNECTOR



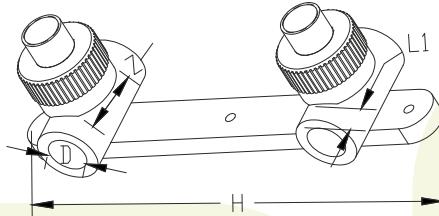
CODE	SIZE	THREADS	D	L	L1	L2	H
KPT DBTC F-0409	20*1/2	1/2"	19.1	17.3	248	101	30
KPT DBTC F-0410	25*1/2	1/2"	24.0	18.5	248	101	30



DOUBLE MALE THREADED TEE WITH DISK



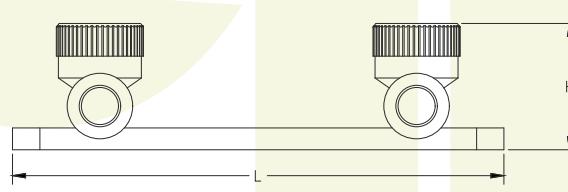
CODE	SIZE	THREADS	D	L1	Z	H
KPT DMTWD -0411	20*1/2	1/2"	19.1	16.0	25.3	150
KPT DMTWD -0412	25*1/2	1/2"	24.0	18.0	25.2	150



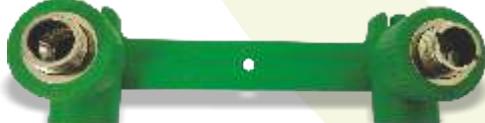
DOUBLE FEMALE THREADED TEE WITH DISK



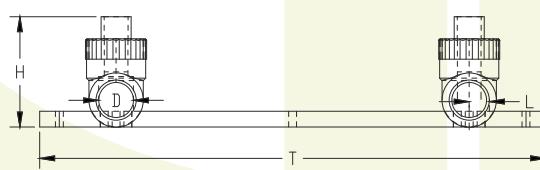
CODE	SIZE	THREADS	D	L1	Z	L
KPT DFTWD -0413	20*1/2	1/2"	19.1	16.0	25.3	150
KPT DFTWD -0414	25*1/2	1/2"	24.0	18.0	25.2	150



DOUBLE MALE ELBOW WITH DISK



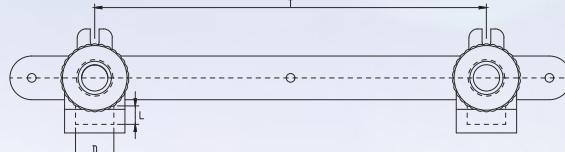
CODE	SIZE	THREADS	D	L	Z	T
KPT DMEWD -0415	20*1/2	1/2"	18.7	15.8	16.0	149.5
KPT DMEWD -0416	25*1/2	1/2"	24.0	17.6	16.2	149.5



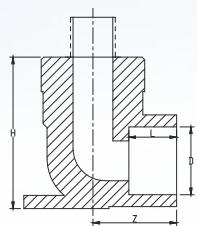
DOUBLE FEMALE ELBOW WITH DISK



CODE	SIZE	THREADS	D	L	Z	T
KPT DFEWD -0417	20*1/2	1/2"	18.7	15.8	16.0	149.5
KPT DFEWD -0418	25*1/2	1/2"	24.0	17.6	16.2	149.5

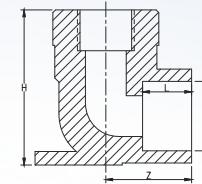


MALE THREADED ELBOW WITH DISK



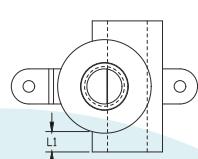
CODE	SIZE	THREADS	D	L	Z	H
KPT MTEWD -0419	20*1/2	1/2"	19.1	15.8	15.0	65
KPT MTEWD -0420	25*1/2	1/2"	24.0	17.6	16.2	70

FEMALE THREADED ELBOW WITH DISK



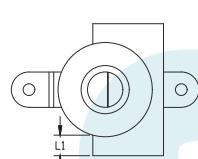
CODE	SIZE	THREADS	D	L	Z	H
KPT FTEWD -0421	20*1/2	1/2"	19.1	15.8	15.0	50
KPT FTEWD -0422	25*1/2	1/2"	24.0	17.6	16.2	55

MALE THREADED TEE WITH DISK



CODE	SIZE	THREADS	D	L1	Z	H
KPT MTTWD -0423	20*1/2	1/2"	19.1	16.0	56.0	64
KPT MTTWD -0424	25*1/2	1/2"	24.0	17.2	57.7	70

FEMALE THREADED TEE WITH DISK



CODE	SIZE	THREADS	D	L1	Z	H
KPT FTTWD -0425	20*1/2	1/2"	19.1	16.0	56.0	50
KPT FTTWD -0426	25*1/2	1/2"	24.0	17.2	57.8	56

CONCEALED VALVE



CODE	SIZE	D	L	L1
KPT CV-0427	20 MM	19.0	15.0	60.5
KPT CV-0428	25 MM	24.3	17.2	68.1
KPT CV-0429	32 MM	31.0	20.0	79.7

FUSION METHOD

The process of joining PPR-C pipes and fittings is very simple and results in inseparable watertight joints. It is carried out using a simple welding machine that fuses the internal surface of the fitting and the external surface of the pipe, so that the material of the pipe and the fitting will be bonded together.

THE FOLLOWING DESCRIBE THE STEPS OF THE WELDING PROCESS

Prepare the welding machine by fitting it with the welding dies of the diameters to be welded. Connect the plug to the 220V power supply socket and wait until the green light on the machine goes out indicating the welding machine has reached the working temperature.

- Cut the pipe at right angles to the pipe axis using suitable pipe cutter.
- Remove any burrs or cutting chips by deburring the cutting area.
- Mark the welding depth on the pipe using suitable marker.
- Insert the end of the pipe without turning into the heating sleeve up to the marked welding depth and at the same time slide the fitting without turning into the other side of the heating tool up to the stop. It is essential to observe the mentioned heating times (refer to the below table)
- Leave the pipe and fitting into the heating tool until the heating time is elapsed.
- At the end of the heating time, remove the pipe and fitting from the heating tool and push them immediately against each other up to the mark indicating the welding depth. At this stage the depth mark will be covered with the welding bead.
- During this process, do not rotate the pipe and fitting relative to each other.
- Allow the joint to cool fully before using.



Recommended Time For PPR Systems Fusion Joints

PIPE DIA. (MM)	WELDING DEPTH (MM)	HEATING TIME (SEC)	WELDING TIME (SEC)	COOLING TIME (MIN)
16	14.0	6	4	2
20	14.5	6	4	2
25	16.0	7	4	2
32	18.0	8	6	4
40	20.5	12	6	4
50	23.5	18	6	4
63	27.5	24	8	6
75	30.0	30	8	6
90	32.5	40	8	6
110	37.0	50	10	8
160	42.0	60	15	10

Recommended Time For PPR Systems Butt Joint

PIPE DIA. (MM)	WELDING MACHINE TEMPERATURE °C	HEATING TIME (MIN)	WELDING TIME (SEC)	COOLING TIME (MIN)
200	220-240	30	180	15-20
250	220-240	30	240	16-24
315	225-240	30	300	20-25
355	225-240	30	360	25-30
400	225-240	30	420	30-35

PRODUCT INSTALLATION



OUR CERTIFICATIONS & ACCOMPLISHMENTS

NSF International

789 N. Dixboro Road, Ann Arbor, MI 48105 USA

RECOGNIZES

KPT Piping System Private Limited

Facility: Uttarakhand, India

AS COMPLYING WITH NSF/ANSI/CAN 61 AND ALL APPLICABLE REQUIREMENTS.
PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE
AUTHORIZED TO BEAR THE NSF MARK.



This certificate is the property of NSF International and is valid for internal use only. This certificate remains valid as long as the above facility products are listed in the official listing for the applicable standard. For the most current and complete listing information, please visit www.nsf.org/certlist.asp.


David Parkin
Vice President, Global Water Division

April 15, 2021
Certificate CWA043098 - 01

NSF International

789 N. Dixboro Road, Ann Arbor, MI 48105 USA

RECOGNIZES

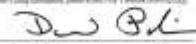
KPT Piping System Private Limited

India

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David Parkin
Vice President, Global Water Division

April 15, 2021
Certificate CWA043097 - 01

Approval Number 180543
Test Report: MATTALB 1308 rev. 1



Water Regulations Approval Scheme Ltd.
Unit 13,
Willow Road,
Pen-y-Fan Industrial Estate,
Gwent,
NP11 4EG

25th July 2022
KPT Piping System Pvt. Ltd.,
12289, Central Hope Town,
Industrial Area Setauli,
Dehradun,
Uttarakhand,
India

WATER REGULATIONS APPROVAL SCHEME LTD. (WRAS) MATERIAL APPROVAL

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6992-1:2000 since 2014. Suitable for domestic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

POLYPROPYLENE - COMPONENTS

5260

K.P.T Pipe: Green coloured (with blue stripe), extruded pipe. For use with water up to 70°C.

APPROVAL NUMBER: 180543
APPROVAL HOLDER: KPT PIPING SYSTEM PVT. LTD.

The Scheme reserves the right to review approval.

Approval 180543 is valid between 25th April and 25th May 2023

As early as possible, will document any changes in the Water Fittings Directory on-line under the section headed, "Materials which have passed full test of effect on water quality".

The Directory may be found at www.wrasscheme.co.uk/waterfittingsdirectory.

Yours faithfully

Ian Hughes
WRAS Approvals Manager

The Water Regulations Approval Scheme Ltd. Registered in England No. 1303284 Registered office: 40 Loxack Close, Hazel Grove, Stockport, SK7 5DD
WRAS Apr-2021 Ver 2.0
01-04-2021 241 000 Tel: +44(0)161 466 0000 Email: info@wrasscheme.co.uk



Registration Certificate
This is to certify that
The Quality Management System
KPT PIPING SYSTEM PVT. LTD.
Is found to conform to the Quality Management System Standard
ISO 9001:2015

This certificate is valid for the following Product or Service category:

MANUFACTURING, MARKETING & SUPPLY OF PPR PIPE & FITTINGS, PVC PIPE & FITTINGS, PVF PIPE & FITTINGS

Comments No.: 148/QMS/15/1396
Issue Date: 09/06/2020
Expiry Date: 08/06/2023
The validity of certificate is subject to regular surveillance audit of before, among interested sites and its duly value after, surveillance with certification letter issued by CCPL.
Certification of the certificate shall be done by the following body:
Chairman / Director
Care Certification Private Limited
103, Sector 10, Faridabad, Haryana-121001
Email: carecertification@carecert.com
International Accreditation Services
102, Sector 10, Faridabad, Haryana-121001
Email: ias@iasindia.org



SOME OF OUR PRESTIGIOUS CLIENTS



Best in industry for:

- **Pharma Industry**
- **Chemical Industry**
- **Dairy & Food Products**
- **Automobile Ind.**
- **Textile Ind.**



KPT PIPING SYSTEM PRIVATE LIMITED

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New Delhi-110034 India

Works: 122/69, Central Hope Town, Selaqui, Industrial Area,
Dehradun-248197 (Uttarakhand)

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Email: info@kptpipes.com | Web: www.kptpipes.com

Toll Free No.: **1800-270-4672**

