

A evolução nas instalações em PPR para
AR COMPRIMIDO
TUBOS 3 CAMADAS KPT Anti Microbiano
Resistente UV e Alto Isolamento Térmico.



CERTIFICAÇÃO ISO 9001:2015 E ISO 14001:2015

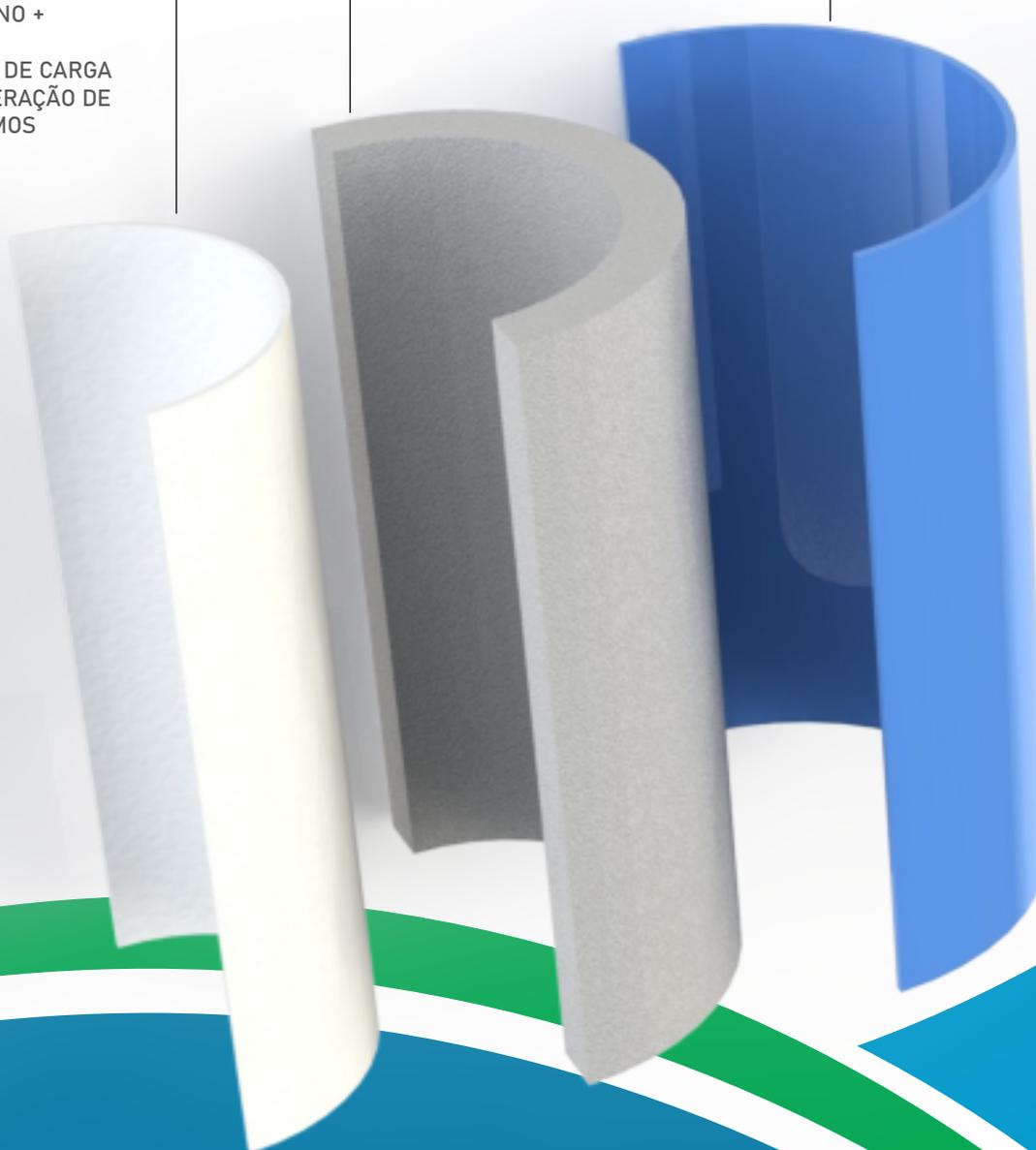
Inovação que redefine padrões
TUBOS 3 CAMADAS KPT
MAIS QUALIDADE, CONFIABILIDADE
E EFICIÊNCIA EM SUAS INSTALAÇÕES

CAMADA INTERNA

PPR + ADITIVO
ANTIMICROBIANO +
POLIMENTOS,
MENOR PERDA DE CARGA
E SEM PROLIFERAÇÃO DE
MICROORGANISMOS

● **CAMADA DO MEIO**
PPR + FIBRA DE VIDRO
ESTABILIDADE
DIMENSIONAL.
ISOLAMENTO TÉRMICO

● **CAMADA EXTERNA**
PPR + ADITIVO CONTRA
RAIOS UV



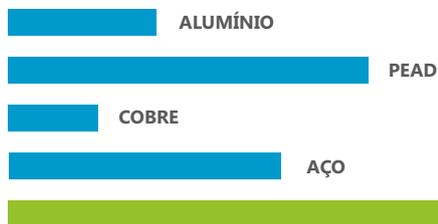
DIFERENCIAIS ÚNICOS DA TUBULAÇÃO PPR **KPT**

DURABILIDADE E RESISTÊNCIA

- Montagem sem vazamento
- Capacidade de alta pressão
- Capacidade alta de isolamento térmico
- Resistente à corrosão e oxidação
- Resistência química
- Resistência térmica
- Resistência aos raios UV



VIABILIDADE ECONÔMICA



- Excelente custo benefício
- Baixo peso, transporte e manuseio facilitado
- Facilidade de instalação

HIGIENE E SEGURANÇA ALIMENTAR

- Resistente ao crescimento bacteriano
- Produto higiênico, ideal para indústria alimentícia
- Resistente ao calor
- Montagem sem vazamento



VERSATILIDADE E CONFIABILIDADE



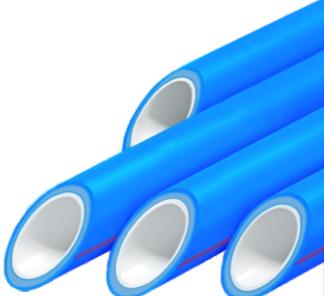
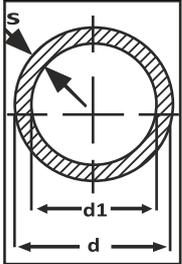
- Variedades de tipos de conexão
- Disponibilidade de diâmetros de Ø20 a Ø200
- Não requer lixa, colas, solventes, ou algo do tipo

SIMPLICIDADE OPERACIONAL

- Facilidade de instalação
- Facilidade de reparo
- Facilidade de reposição
- Facilidade de ampliação



TUBO 3 CAMADAS

Foto	Desenho Técnico	Código	Diâmetro	Espessura da parede	Ø Interno	Ar contido	Comp.
			d(mm)	S(mm)	di(mm)	(l/m)	(m)
		BRP-20-3C-3M	20	2.8	14.4	0.163	3
		BRP-25-3C-3M	25	3.5	18.0	0.254	3
		BRP-32-3C-3M	32	4.4	23.2	0.423	3
		BRP-40-3C-3M	40	5.5	29.0	0.660	3
		BRP-50-3C-3M	50	6.9	36.2	1.029	3
		BRP-63-3C-3M	63	8.6	45.8	1.647	3
		BRP-75-3C-3M	75	10.3	54.4	2.323	3
		BRP-90-3C-3M	90	12.3	65.4	3.358	3
		BRP-110-3C-3M	110	15.1	79.8	4.999	3
		BRP-160-3C-3M	160	21.9	116.2	10.599	3
		BRP-200-3C-3M	200	27.4	145.2	16.550	3

PRESSÃO DE TRABALHO PERMITIDA

A lista da tabela abaixo mostra a pressão de trabalho permitida para tubos com diferentes classes de pressão sob temperatura e vida útil específicas. Sob pressão e condições normais de trabalho, a vida útil do sistema de tubulação KPT PPR é garantida em pelo menos 50 anos.

Temperatura °C	Tempo de Trabalho (Anos)	Pressão de trabalho admissível, em bar
10°C	1	34.8
	5	33.0
	10	31.9
	25	30.9
	50	30.0
20°C	1	29.8
	5	27.9
	10	27.1
	25	26.4
	50	28.5
30°C	1	25.3
	5	23.8
	10	22.9
	25	22.1
	50	21.6
40°C	1	21.4
	5	20.0
	10	19.5
	25	18.8
	50	18.1
50°C	1	18.0
	5	16.9
	10	16.4
	25	15.8
	50	15.3

Temperatura °C	Tempo de Trabalho (Anos)	Pressão de trabalho admissível, em bar
60°C	1	15.1
	5	14.3
	10	13.8
	25	13.1
	50	12.6
70°C	1	12.9
	5	11.9
	10	11.6
	25	10.0
	50	8.4
80°C	1	10.8
	5	9.5
	10	7.9
	25	6.4
95°C	1	7.6
	5	5.0
	10	4.3
110°C	1	5.0
	5	3.0

TUBO PN16 1 CAMADA

Foto	Desenho Técnico	Código	Diâmetro	Espessura da parede	Comp.
			d(mm)	S(mm)	(m)
		BRP-20-3M	20	2.8	3
		BRP-25-3M	25	3.5	3
		BRP-32-3M	32	4.4	3
		BRP-40-3M	40	5.5	3
		BRP-50-3M	50	6.9	3
		BRP-63-3M	63	8.6	3
		BRP-75-3M	75	10.3	3
		BRP-90-3M	90	12.3	3

PRESSÃO DE TRABALHO PERMITIDA

Temperatura operacional permitida para tubos feitos de PP-R, fluxo médio de ar, fator de segurança (SF) = 1,5
Cálculo base com SDR 9

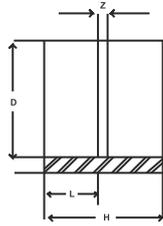
Temperatura °C	Tempo de Trabalho (Anos)	Pressão de trabalho admissível, em bar
10°C	1	22,1
	5	20,8
	10	20,3
	25	19,6
	50	19,1
	100	18,6
20°C	1	18,8
	5	17,7
	10	17,2
	25	16,6
	50	16,2
	100	15,8
30°C	1	16,0
	5	15,0
	10	14,5
	25	14,1
	50	13,7
	100	13,3
40°C	1	13,6
	5	12,7
	10	12,3
	25	11,9
	50	11,5
	100	11,2
50°C	1	11,5
	5	10,7
	10	10,4
	25	10,0
	50	9,7
	100	9,4

Temperatura °C	Tempo de Trabalho (Anos)	Pressão de trabalho admissível, em bar
60°C	1	9,7
	5	9,0
	10	8,7
	25	8,4
	50	8,1
	100	7,8
70°C	1	8,1
	5	7,5
	10	7,3
	25	6,3
	50	5,3
	100	4,8
80°C	1	6,8
	5	6,0
	10	5,1
	25	4,1
95°C	1	4,8
	5	3,2
	10*	(2,7)
	100	(2,5)

* Os valores entre parênteses se aplicam com base na comprovação de tempos de teste superiores a 1 ano para o teste de 110°C.

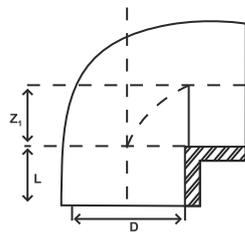
ACESSÓRIOS

LUVA



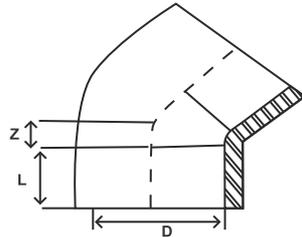
CÓDIGO	Ø (mm)	D	L	Z	H
LU200P	20 MM	19.2	14.5	3.9	32.9
LU250P	25 MM	24.1	18.0	2.6	38.6
LU320P	32 MM	31.0	18.4	3.0	39.8
LU400P	40 MM	38.9	20.7	3.4	44.8
LU500P	50 MM	48.0	24.4	3.1	51.9
LU630P	63 MM	60.7	28.2	8.2	64.6
LU750P	75 MM	71.9	31.5	4.0	67.0
LU900P	90 MM	86.4	32.5	6.1	71.1
LU1100P	110 MM	106.8	38.8	3.0	80.6
LU1600P	160 MM	153.0	42.5	5.4	90.4

JOELHO 90°



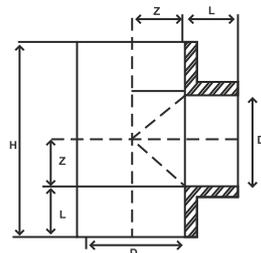
CÓDIGO	Ø (mm)	D	L	Z
JO200P	20 MM	19.1	15.5	10.9
JO250P	25 MM	24.2	16.9	14.1
JO320P	32 MM	31.1	18.0	16.4
JO400P	40 MM	39.5	20.0	20.0
JO500P	50 MM	48.4	23.8	26.2
JO630P	63 MM	60.5	27.4	32.2
JO750P	75 MM	72.6	31.5	38.0
JO900P	90 MM	86.8	33.0	44.7
JO1100P	110 MM	106.5	39.0	54.8
JO1600P	160 MM	153.6	45.0	78.7

JOELHO 45°



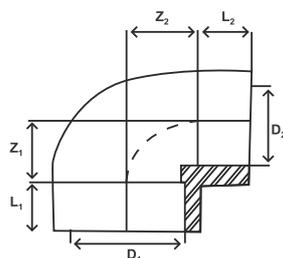
CÓDIGO	Ø (mm)	D	L	Z
JO205P	20 MM	19.3	15.5	6.0
JO255P	25 MM	23.7	17.6	7.0
JO325P	32 MM	30.6	16.5	8.0
JO405P	40 MM	38.2	21.3	9.0
JO505P	50 MM	47.7	22.5	12.0
JO635P	63 MM	60.0	26.0	13.0
JO755P	75 MM	72.5	26.7	20.0
JO905P	90 MM	86.8	34.5	32.0

TE



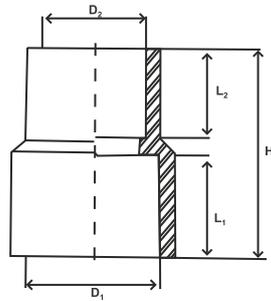
CÓDIGO	Ø (mm)	D	L	Z	H
TE200P	20 MM	19.3	15.8	10.5	52.6
TE250P	25 MM	24.2	18.0	12.7	61.4
TE320P	32 MM	31.4	20.2	16.3	72.5
TE400P	40 MM	39.0	20.3	20.9	82.4
TE500P	50 MM	48.6	24.4	24.5	97.8
TE630P	63 MM	61.7	27.4	32.6	120.0
TE750P	75 MM	72.2	31.3	36.7	136.0
TE900P	90 MM	86.9	32.9	47.1	160.0
TE1100P	110 MM	106.7	38.8	55.3	188.2
TE1600P	160 MM	153.7	45.0	85.0	260.0

JOELHO REDUÇÃO



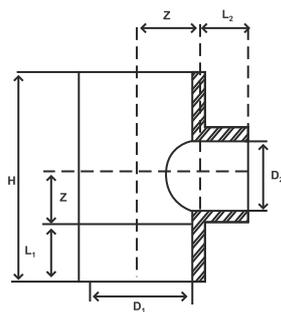
CÓDIGO	Ø (mm)	D1	D2	L1	L2	Z1	Z2
JR2520P	25/20	24.0	19.2	18.5	16.0	17.8	14.4
JR3220P	32/20	31.3	19.2	21.1	16.0	18.3	18.0
JR3225P	32/25	31.3	24.2	20.0	17.8	22.2	20.7
JR4020P	40/20	38.7	19.2	21.6	16.3	19.6	24.2
JR4025P	40/25	38.7	24.2	21.6	17.8	21.4	20.7
JR4032P	40/32	38.6	31.2	21.9	19.8	24.2	25.3

LUVA REDUÇÃO



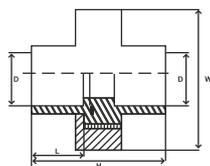
CÓDIGO	Ø (mm)	D1	D2	L1	L2	H
LR2520P	25/20	24.0	19.2	18.5	15.7	38.1
LR3220P	32/20	31.3	19.2	20.0	15.7	39.3
LR3225P	32/25	31.4	24.4	21.0	18.4	41.7
LR4020P	40/20	38.7	19.3	22.9	16.9	48.0
LR4025P	40/25	39.0	24.2	24.2	18.0	48.5
LR4032P	40/32	38.6	31.0	21.1	18.8	44.9
LR5020P	50/20	48.0	18.8	24.6	16.6	44.5
LR5025P	50/25	48.0	23.8	24.5	16.2	45.6
LR5032P	50/32	48.0	31.1	24.4	18.0	48.1
LR5040P	50/40	48.2	38.8	24.3	20.9	48.2
LR6320P	63/20	60.9	19.2	28.2	15.9	48.3
LR6325P	63/25	60.7	24.1	28.2	18.0	49.5
LR6332P	63/32	60.6	30.7	28.0	18.0	48.0
LR6340P	63/40	60.8	38.3	25.3	25.5	56.8
LR6350P	63/50	60.9	48.2	29.2	25.8	64.8
LR7532P	75/32	72.5	31.0	42.7	21.1	63.8
LR7540P	75/40	72.2	38.7	31.6	22.5	63.6
LR7550P	75/50	72.1	48.4	31.7	27.0	63.2
LR7563P	75/63	71.8	60.9	31.4	30.0	67.0
LR9075P	90/75	86.7	72.7	37.2	31.5	71.7
LR9063P	90/63	86.6	60.9	32.8	29.9	68.8
LR9050P	90/50	86.5	48.1	33.0	26.3	70.0
LR11050P	110/50	106.8	48.4	38.9	26.0	76.0
LR11063P	110/63	106.8	61.2	38.9	30.1	76.0
LR11075P	110/75	106.8	72.6	38.9	31.8	76.0
LR11090P	110/90	106.8	86.6	38.9	33.0	76.0

TE REDUÇÃO



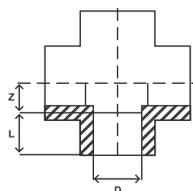
CÓDIGO	Ø (mm)	D1	D2	L1	L2	Z	H
TR2520P	25/20/25	24.2	19.1	17.6	16.2	10.8	56.8
TR3220P	32/20/32	31.1	19.1	19.8	16.5	11.3	62.2
TR3225P	32/25/32	31.4	24.2	20.0	17.8	13.4	66.8
TR4020P	40/20/40	39.0	19.1	21.4	16.5	11.1	65.0
TR4025P	40/25/40	38.8	24.2	21.4	17.6	13.5	69.8
TR4032P	40/32/40	38.8	31.0	21.4	19.5	16.8	76.4
TR5020P	50/20/50	48.4	19.1	24.4	18.1	24.5	97.7
TR5025P	50/25/50	48.6	24.1	24.3	17.9	24.7	98.0
TR5032P	50/32/50	48.6	30.5	24.3	18.8	24.6	97.8
TR5040P	50/40/50	48.6	38.7	22.4	22.0	26.1	96.9
TR6320P	63/20/63	61.2	19.0	27.5	16.2	32.2	119.4
TR6325P	63/25/63	61.3	23.8	27.5	19.4	32.2	119.4
TR6332P	63/32/63	61.3	30.8	27.5	19.3	32.2	119.4
TR6340P	63/40/63	61.3	38.9	27.3	22.5	32.4	119.4
TR6350P	63/50/63	61.2	48.0	27.4	25.8	32.3	119.4
TR7540P	75/40/75	72.3	38.4	31.4	20.3	26.4	115.5
TR7550P	75/50/75	72.3	47.9	31.4	29.8	26.4	115.5
TR7563P	75/63/75	72.2	60.2	31.4	29.8	26.4	115.5
TR9050P	90/50/90	86.5	48.1	32.8	26.0	31.3	128.1
TR9063P	90/63/90	86.5	61.2	32.8	30.1	31.3	128.1
TR9075P	90/75/90	86.5	72.4	32.9	31.7	46.9	159.5
TR11050P	110/50/110	106.5	48.6	38.9	26.2	38.3	154.3
TR11063P	110/63/110	106.7	61.3	39.0	30.2	38.2	154.3
TR11075P	110/75/110	106.4	72.5	39.0	32.0	38.2	154.3
TR11090P	110/90/110	106.7	87.1	38.9	33.0	54.8	187.4
TR160110P	160/110/160	157.5	107.4	45.0	44.9	80.9	251.8

UNIÃO RETA



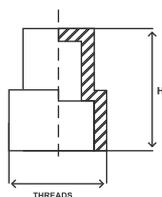
CÓDIGO	Ø (mm)	D	L	W	H
UN200P	20 MM	19.2	17.7	52.2	44.4
UN250P	25 MM	24.2	18.6	51.4	55.2
UN320P	32 MM	31.2	22.1	61.5	67.5
UN400P	40 MM	39.2	29.2	79.0	79.9
UN500P	50 MM	47.7	23.6	78.0	96.1
UN630P	63 MM	60.7	27.7	89.0	107.6

CRUZETA



CÓDIGO	Ø (mm)	D	L	Z
CZ200P	20 MM	18.8	15.5	15.4
CZ250P	25 MM	24.1	17.1	24.9
CZ320P	32 MM	30.6	17.8	32.2
CZ400P	40 MM	38.0	20.8	39.2
CZ500P	50 MM	48.0	21.3	52.2
CZ630P	63 MM	60.7	23.3	63.6

PLUG LONGO



CÓDIGO	Ø (mm)	Roscas	H
PG200P	1/2"	1/2"	69.7
PG250P	3/4"	3/4"	62.2
PG320P	1"	1"	73.6

CAP



CÓDIGO	Ø (mm)
CP200P	20 MM
CP250P	25 MM
CP320P	32 MM
CP400P	40 MM
CP500P	50 MM
CP630P	63 MM
CP750P	75 MM
CP900P	90 MM
CP1100P	110 MM
CP1600P	160 MM

NIPLE



CÓDIGO	Ø (mm)
N-04-P	G1/2"-G1/2"
N-06-P	G3/4"-G3/4"
N-10-P	G1"-G1"
N-14-P	G1.1/2"-G1.1/2"
N-20-P	G2"-G2"

NIPLE DE REDUÇÃO



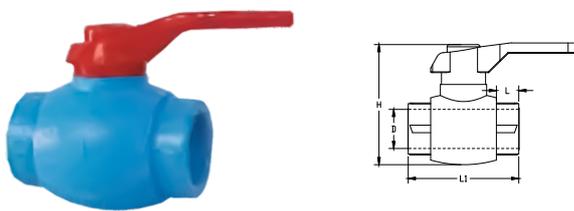
CÓDIGO	Ø (mm)
N-20-14-P	G2"-G1.1/2"
N-14-10-P	G1.1/2"-G1"
N-10-06-P	G1"-G3/4"
N-06-04-P	G3/4"-G1/2"

VÁLVULA DE ESFERA ALAVANCA



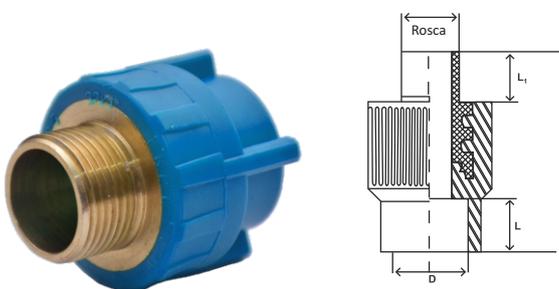
CÓDIGO	Ø (mm)	D	L	Z
RES200P	DN20	27,50	101,00	16,50
RES250P	DN25	34,80	113,00	18,50
RES320P	DN32	42,20	131,00	20,50
RES400P	DN40	52,50	133,00	22,50
RES500P	DN50	65,30	153,00	25,50
RES630P	DN63	83,00	165,00	29,50
RES750P	DN75	-	-	-

VÁLVULA ESFERA ALAVANCA



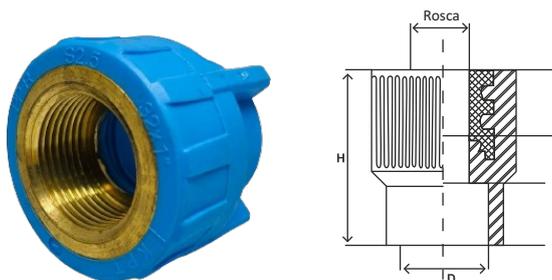
CÓDIGO	Ø (mm)	D	L	L1	H
VE200P	20 MM	19.4	66.0	17.0	65.0
VE250P	25 MM	24.4	73.2	17.3	75.9
VE320P	32 MM	31.5	85.3	20.9	83.9
VE400P	40 MM	39.4	111.8	24.5	112.6
VE500P	50 MM	49.5	116.3	27.5	120.0
VE630P	63 MM	61.7	149.0	37.0	141.7

ADAPTADOR RETO MACHO



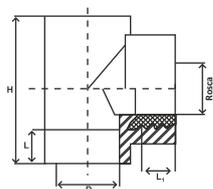
CÓDIGO	Ø (mm)	Rosca	D	L	L1	H
AD20120P	20*1/2	½"	19.2	16.2	14.2	57.0
AD25120P	25*1/2	½"	23.8	18.3	14.2	56.0
AD25340P	25*3/4	¾"	24.1	18.2	14.1	59.1
AD32010P	32*1	1"	31.1	20.2	28.0	71.8
AD40114P	40*1-1/4	1¼"				
AD50112P	50*1-1/2	1½"	48.9	25.5	21.3	80.0
AD63020P	63*2	2"	62.2	29.5	26.3	95.2
AD75212P	75*2-1/2	2½"	72.0	32.4	24.9	100.5
AD90030P	90*3	3"	86.4	38.2	24.6	109.2
AD11040P	110*4	4"	104.9	38.1	25.5	119.0

ADAPTADOR RETO FÊMEA



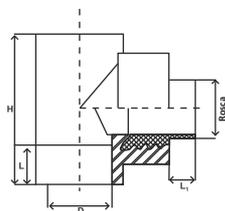
CÓDIGO	Ø (mm)	Rosca	D	L	L1	H
LM20120P	20*1/2	½"	19.2	16.0	15.0	43.2
LM25120P	25*1/2	½"	23.6	18.0	14.9	41.8
LM25340P	25*3/4	¾"	24.1	18.1	15.7	45.0
LM32120P	32*1/2	½"	31.1	20.0	15.0	50.5
LM32340P	32*3/4	¾"	31.1	20.4	16.0	52.0
LM32010P	32*1	1"	31.1	20.2	17.8	54.7
LM50112P	50*1-1/2	1½"	48.8	25.3	18.5	58.0
LM50020P	50*2	2"				
LM63020P	63*2	2"	61.5	28.6	25.6	68.1
LM75212P	75*2-1/2	2½"	71.8	31.7	20.2	89.2
LM90030P	90*3	3"	86.5	38.0	21.9	101.5
LM11040P	110*4	4"	106.1	38.2	26.3	116.8

TE FÊMEA



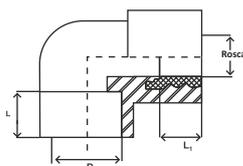
CÓDIGO	Ø (mm)	Rosca	D	L	L1	H
TF20120P	20*1/2	½"	19.2	15.0	14.0	58.2
TF25120P	25*1/2	½"	24.2	14.9	14.0	62.2
TF25340P	25*3/4	¾"	24.2	16.2	13.9	63.8
TF32120P	32*1/2	½"	31.3	15.0	14.2	78.0
TF32340P	32*3/4	¾"	31.3	16.2	14.2	78.2
TF32010P	32*1	1"	31.2	17.7	15.8	77.8

TE MACHO



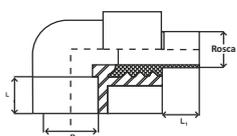
CÓDIGO	Ø (mm)	Rosca	D	L	L1	H
TM20120P	20*1/2	½"	19.2	16.5	14.0	58.2
TM25120P	25*1/2	½"	24.2	18.2	14.0	62.2
TM25340P	25*3/4	¾"	24.2	17.6	13.9	63.8
TM32120P	32*1/2	½"	31.3	20.0	14.2	78.0
TM32340P	32*3/4	¾"	31.3	20.0	14.2	78.2
TM32010P	32*1	1"	31.2	20.0	15.8	77.8

JOELHO FÊMEA



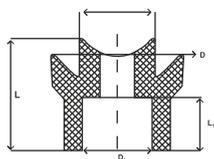
CÓDIGO	Ø (mm)	Rosca	D	L	L1
JM20120P	20*1/2	½"	19.2	16.1	16.0
JM25120P	25*1/2	½"	24.1	17.9	15.0
JM25340P	25*3/4	¾"	24.2	17.9	16.0
JM32120P	32*1/2	½"	31.2	20.2	15.0
JM32340P	32*3/4	¾"	31.2	20.2	16.1
JM32010P	32*1	1"	31.2	20.3	18.3

JOELHO MACHO



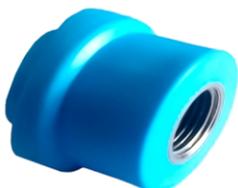
CÓDIGO	Ø (mm)	Rosca	D	L	L1
JO20120P	20*1/2	½"	19.2	16.1	15.0
JO25120P	25*1/2	½"	24.1	17.9	15.0
JO25340P	25*3/4	¾"	24.2	18.0	14.2
JO32120P	32*1/2	½"	31.3	21.0	14.3
JO32340P	32*3/4	¾"	31.3	20.4	15.2
JO32010P	32*1	1"	31.3	20.1	27.0

DERIVAÇÃO DE RAMAL



CÓDIGO	Ø (mm)	D	D1	L	L1
DR5025P	50/25				
DR6325P	63/25				
DR7525P	75/25				
DR9020P	90/20	78.5	19.1	62.1	15.5
DR9025P	90/25	78.5	24.2	62.1	17.5
DR9032P	90/32	78.5	31.0	62.1	19.1

DERIVAÇÃO FÊMEA



CÓDIGO	Ø (mm)	Rosca
DR63120P	63*1/2"	1/2"

UNIÃO FLANGEADA



CÓDIGO	Ø (mm)
UNFA500P	DN50
UNFA630P	DN63
UNFA750P	DN75
UNFA900P	DN90
UNFA110P	DN110
UNFA160P	DN160

CURVA 90°



CÓDIGO	Ø (mm)
CL200P	DN20
CL250P	DN25

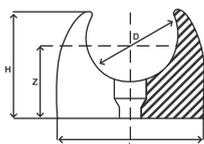
CURVA 180°



CÓDIGO	Ø (mm)
CV200P	DN20
CV250P	DN25
CV320P	DN32

SUPORTE DE MONTAGEM

SUPORTE DESLIZANTE



CÓDIGO	Ø (mm)	D	L	Z	H
SP200P	20 MM	18.9	27.0	19.2	31.0
SP250P	25 MM	24.0	32.0	21.0	36.0
SP320P	32 MM	30.7	39.5	27.5	43.5
SP400P	40 MM	39.1	48.3	30.9	49.8
SP500P	50 MM	50.0	60.0	37.3	61.5
SP630P	63 MM	63.0	74.7	45.0	75.3

SUPORTE COM TRAVA



CÓDIGO	Ø (mm)
SCK20P	20 MM
SCK25P	25 MM
SCK32P	32 MM

ABRAÇADEIRA



* Rosca da porca M10x1,5

CÓDIGO	Ø (mm)
XK200000	DN20
XK250000	DN25
XK320000	DN32
XK400000	DN40
XK500000	DN50
XK630000	DN63

ABRAÇADEIRA



CÓDIGO	Ø (mm)
JK200000	DN20
JK250000	DN25
JK320000	DN32
JK400000	DN40
JK500000	DN50
JK630000	DN63

ABRAÇADEIRA



CÓDIGO	Ø (mm)
KK200000	DN20
KK250000	DN25
KK320000	DN32
KK400000	DN40
KK500000	DN50
KK630000	DN63

TERMOFUSORA



TRF2040*

CÓDIGO	Ø (mm)
TRF2040	20~40
TRF2063	20~63
TRF75110	75~110

BOCAL PARA TERMOFUSORA



CÓDIGO	Ø (mm)
WM-20	20
WM-25	25
WM-32	32
WM-40	40
WM-50	50
WM-63	63
WM-75	75
WM-90	90
WM-110	110
WM-160	160

CORTADOR DE TUBO



CÓDIGO	Ø (mm)
TSR2040	20~40



ERGONOMICO

CÓDIGO	Ø (mm)
TSR2040P	20~40



CÓDIGO	Ø (mm)
TSR2075	20~75

REALIZANDO A TERMOFUSÃO

O processo de união de tubos e conexões PPR-C é bastante simples e resulta em juntas estanques inseparáveis. É realizado usando uma máquina de solda simples que funde a superfície interna da conexão e a superfície externa do tubo, de modo que o material do tubo e da conexão se fundem, criando uma ligação sólida.

PASSO A PASSO DO PROCESSO DE SOLDAGEM

Prepare a máquina de solda, encaixando as matrizes de soldagem dos diâmetros a serem soldados. Conecte o plugue à tomada de alimentação de 220V e aguarde até que a luz verde na máquina se apague, indicando que a máquina de solda atingiu a temperatura de trabalho.

- Corte o tubo em ângulo reto com o eixo do tubo usando um cortador de tubos adequado.
- Remova rebarbas ou lascas de corte, desbastando a área de corte.
- Marque a profundidade de soldagem no tubo usando um marcador adequado.
- Insira a extremidade do tubo, sem girar, na luva de aquecimento até a profundidade de soldagem marcada, ao mesmo tempo em que desliza a conexão, sem girar, para o outro lado da ferramenta de aquecimento até parar. É essencial observar os tempos de aquecimento mencionados (consulte a tabela abaixo).
- Deixe o tubo e a conexão na ferramenta de aquecimento até que o tempo de aquecimento seja concluído.
- Ao final do tempo de aquecimento, remova o tubo e a conexão da ferramenta de aquecimento e pressione-os imediatamente um contra o outro até a marca que indica a profundidade de soldagem. Nesta etapa, a marca de profundidade será coberta com a costura de solda.
- Durante esse processo, não gire o tubo e a conexão um em relação ao outro.
- Permita que a junta esfrie completamente antes de usar.



Tempo Recomendado para Fusão em PPR

Ø TUBO (mm)	PROFUNDIDADE DE SOLDA (mm)	TEMPO DE AQUECIM (SEG)	TEMPO DE SOLDAGEM (SEG)	TEMPO DE RESFRIAM. (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

Tempo para Juntas Tipo Butt em Sistemas PPR

Ø TUBO (mm)	TEMPERATURA DA MÁQUINA DE SOLDAGEM °C	TEMPO DE AQUECI. (MIN)	TEMPO DE SOLDAGEM (SEG)	TEMPO DE RESFRIAM. (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

NOSSAS CERTIFICAÇÕES

ISO 9001 : 2015



Registration Certificate
This is to certify that
The Quality Management Systems
of
KPT PIPING SYSTEM PVT. LTD.
Carried out at following site:
**122/69, CENTRAL HOPE TOWN, SELAQUI INDUSTRIAL
AREA, DEHRADUN - 248 011 (U.K.) (INDIA)**
Has been found to conform to the Quality Management System Standard:
ISO 9001:2015
This certificate is valid for the following Product or Service ranges:
**MANUFACTURING, MARKETING & SUPPLY OF PPRC PIPES &
FITTINGS, PPGF PIPES & FITTINGS, FR PIPES & FITTINGS**

CERTIFICATE NO. : IAS/QMS/G1386
ISSUED ON : 29/06/2022 1st SURVEILLANCE DUE ON : 29/05/20
VALIDITY DATE : 28/06/2025 2nd SURVEILLANCE DUE ON : 29/05/20
THE VALIDITY OF CERTIFICATE IS SUBJECT TO REGULAR SURVEILLANCE AUDIT ON
BEFORE ABOVE MENTIONED DATES AND IT'S ONLY VALID AFTER SUCCESS
SURVEILLANCE WITH CONTINUATION LETTER ISSUED BY CCPL
TO VERIFY THE STATUS OF THE CERTIFICATE, PLEASE VISIT IAFSEARCH CERT WEBSITE: <https://www.iafsearch.org>

[Signature]
CHAIRMAN / DIRECTOR







Care Certification Private Limi
134A, 2nd Floor, Taimoor Nagar, N. F. C., New Delhi-110065
www.carecertification.com
Accredited by
International Accreditation Service (I
3050 Satsum Street, Suite 100, Brea, California 92821-1721
www.iasonline.org

ISO 14001 : 2015



Registration Certificate
This is to certify that
The Management Systems of
KPT PIPING SYSTEM PVT. LTD.
Carried out at following site:
**122/69, CENTRAL HOPE TOWN, SELAQUI INDUSTRIAL
AREA, DEHRADUN - 248 011 (U.K.) (INDIA)**
Has been found to conform to the Environmental Management System Standard:
ISO 14001:2015
This certificate is valid for the following Product or Service ranges:
**MANUFACTURING, MARKETING & SUPPLY OF PPRC PIPES &
FITTINGS, PPGF PIPES & FITTINGS, FR PIPES & FITTINGS**

CERTIFICATE NO. : IAS/EMS/G1074
ISSUED ON : 29/06/2022 1st SURVEILLANCE DUE ON : 29/05/20
VALIDITY DATE : 28/06/2025 2nd SURVEILLANCE DUE ON : 29/05/20
THE VALIDITY OF CERTIFICATE IS SUBJECT TO REGULAR SURVEILLANCE AUDIT ON
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Accredited by
International Accreditation Service (I
3050 Satsum Street, Suite 100, Brea, California 92821-1721
www.iasonline.org

Approval Number 1805543
Test Report: MATLAB 1308 rev. 1



Water Regulations Approval Scheme Ltd.
Unit 13,
Willow Road,
Perry Fan Industrial Estate,
Cumnor,
Oxford,
OX11 4EG

25th July 2022
KPT Piping System Pvt. Ltd.,
122/69, Central Hope Town,
Industrial Area Selaqui,
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 BS6920-1:2000 and/or 2014 "Suitability of non-metallic 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: 1805543
APPROVAL HOLDER: KPT PIPING SYSTEM PVT. LTD.

The Scheme reserves the right to review approval.
Approval 1805543 is valid between May 2018 and May 2023

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".

The Directory may be found at: www.wrasapproval.co.uk/wrasapproval-directory/

Yours Faithfully
[Signature]

Ian Hughes
WRAS Approval Manager

HYOSUNG CHEMICAL

235, Bangso-Daero, Seochu-Gu,
Seoul, Korea, 06278
Tel: +82 (2) 2148 5451-8
Fax: +82 (2) 2146 5428
www.hyosungchemical.com

TO KANHIA PLASTICS PRIVATE LIMITED, April 14, 2022

Letter of Certificate

▶ Grade 1 TOPILENE® R200P

We, HYOSUNG CHEMICAL CORPORATION, hereby certify that KPT PIPING SYSTEM PRIVATE LIMITED is using 100% our TOPILENE® R200P for PPR pipe production without mixing any other PPR material from other suppliers. We have inspected the plant of KPT PIPING SYSTEM PRIVATE LIMITED and verified using TOPILENE® R200P exclusively.

[Signature]
Y. S. Lee
Yong Sung Lee
Chief of Market Development Team
PP/DH Performance Unit,
HYOSUNG CHEMICAL CORPORATION

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

RECOGNIZES
KPT Piping System Private Limited
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 certifies that the product of NSF International and meets the national pipe register. The certification number shall be kept on the label for production of NSF Official Listing for the national market. For the more details and complete information, please contact NSF International directly.

April 15, 2022
Certificate C040295 - 01

[Signature]
Derek P. Ryan
Vice President, Global Water Division

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
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April 15, 2022
Certificate C040295 - 01

[Signature]
Derek P. Ryan
Vice President, Global Water Division



CERTIFICAÇÃO ISO 9001:2015 E ISO 14001:2015

KPT TUBOS E CONEXÕES LTDA

Rua Málaga, nº 381 - Bairro Jardim Bertoni - CEP 13.478-743 - Americana/SP

✉ vendas@kptconexoes.com.br

www.kptconexoes.com.br