



REHAU®

Unlimited Polymer Solutions



RAUFUSION PP-R PLUMBING SYSTEM

Safer. Smarter. More Convenient





THE PERFECT FUSION OF QUALITY AND FUNCTIONALITY

No material degradation

SAFER Engineered for your safety and well being



Safety is critical when choosing a suitable plumbing system. REHAU RAUFUSION consists of a wide array of safety features such as threaded fittings that ensure absolute security at the joints, and the best compounded polypropylene material chosen to prevent material degradation. In addition, the RAUFUSION system has gone through rigorous testing to meet both international and local standards.

Superior raw material

We use specially compounded polypropylene (PP-R) material for our pipe and fitting production. The compounded material includes highly effective stabilizers which prevent the material from degrading during production and operations.

Easy identification

The RAUFUSION piping system is clearly marked out with 3 distinct stripes, each representing a different PN rating. This allows for easy identification at the jobsite for both installation and inspection purposes.



Pressure Rating: **PN10 / SDR 11 / S 5**
 Operating Pressure: 12.9 bars at 20°C
 Operating Temperature: 5 - 70°C
 Lifespan: 50 years
 Appearance: Light Grey with 4 Green stripes



Pressure Rating: **PN 20 / SDR 6 / S 2,5**
 Operating Pressure: 25.7 bars at 20°C
 Operating Temperature: 5 - 70°C
 Life span: 50 years
 Appearance: Light Grey with 4 Magenta stripes



Pressure Rating: **PN16 / SDR 7,4 / S 3,2**
 Operating Pressure: 20.4 bars at 20°C
 Operating Temperature: 5 - 70°C
 Life span: 50 years
 Appearance: Light Grey with 4 Grey stripes

ENGINEERED FOR YOUR SAFETY
AND WELL BEING

Fused
with
ease

SMARTER
Because we're thinking of you

3 Steps to socket fusion



1 Fusioning



2 Aligning



3 Jointing

Homogeneous joint - socket fusion

The result of the socket fusion process is a permanent homogeneous joint that requires no O-ring or solvent to seal and gives great pressure resistance.

Depending on the size of pipe, socket fusion welding can either be done by our handy RAUTOOL RF63, RF125 tool kits, or RAUTOOL RF125 or RF160 station kits.

For more technical details, please refer to REHAU RAUFUSION Technical Information, which can be viewed/downloaded on www.rehau.com.sg.



Welding Parameters

Pipe Diameter (mm)	Insertion depth (mm)	Heating time (sec)	Jointing time (sec)	Cooling time (sec)
20	14	5	4	120
25	16	6	4	180
32	18	8	6	240
40	20	12	6	240
50	23	18	6	300
63	26	25	8	360
75	28	30	8	480
90	31	40	10	480
110	33	50	10	480
125	36	58	10	600
160	43	80	15	900

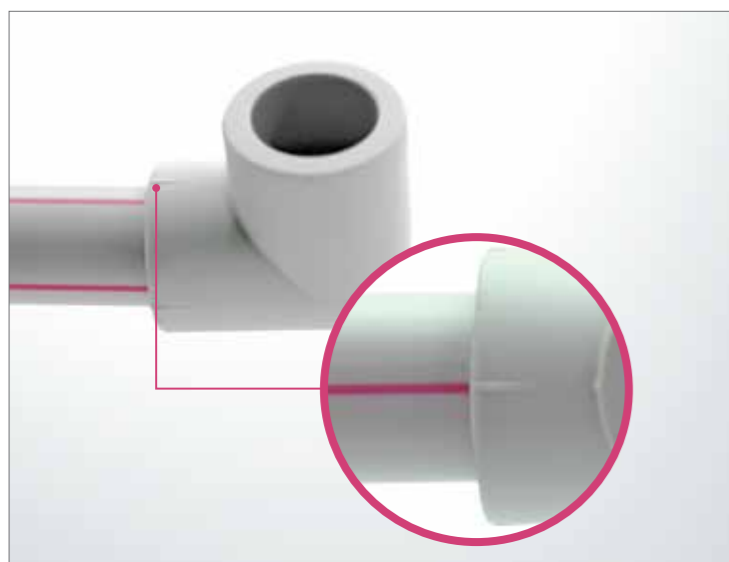


ACCURATE INSTALLATION GUIDELINES FOR EVERY JOINT

Quality at your fingertips

CONVENIENT Easier just for you

Convenience is the core of the RAUFUSION system. Aside from the unique features such as embossed joint and time markings, RAUFUSION is a complete PP-R system that comes equipped with a range of fusion tools that make plumbing installation effortless.



Embossed joint markings

Four (4) stripes located along the pipe are not only designed for easy product identification, but also for convenient installation.

The pipe's stripes and fitting's embossed marking lines allow for easy and quick alignment during the installation to achieve the desired angle of the branched pipe or fitting.



Timing marks

We know that correct fusion time guarantees the quality of the joint.

With REHAU RAUFUSION, our installers are not required to memorize the fusion parameters to carry out the fusion process. It is simply because the Fusion (Heating) Times are printed in small intervals on the RAUFUSION pipes according to the respective heating requirements for each pipe's size.

The fusion time table can also be found in the each REHAU welding tool bag.

REHAU's unique depth markers are also available to measurement of required insertion depth an ease.



TECHNICAL SPECIFICATION

Pipes Dimension Table

Outer pipe dimensions	PN 10 / SDR 11 / S 5		PN 16 / SDR 7.4 / S 3.2		PN 20 / SDR 6 / S 2,5	
	e	ID	e	ID	e	ID
mm	mm	mm	mm	mm	mm	mm
20	1,9	16,2	2.8	14.4	3,4	13,2
25	2,3	20,4	3.5	18	4,2	16,6
32	2,9	26,2	4.4	23.2	5,4	21,2
40	3,7	32,6	5.5	29	6,7	26,6
50	4,6	40,8	6.9	36.2	8,4	33,2
63	5,8	51,4	8.6	45.8	10,5	42,0
75	6,8	61,4	10.3	54.4	12,5	50,0
90	8,2	73,6	12.3	65.4	15,0	60,0
110	10	90,0	15.1	79.8	18,4	73,2
125	-	-	17.1	90.8	-	-
160	14,6	130,8	21.9	116.2	-	-

Designed to meet your requirements

PP-R Material Characteristics

Properties	Test method	Unit	Values
Melt Index 230/2.16	ISO 1133	g/10min	0.25
Density	ISO 1183	g/cm3	0.9
Vicat Softening Temperature	ISO 306	C	>130 C
Thermal conductivity (20°C)	DIN 52612	W/mK	0.24
Thermal Expansion Factor	Dilatometer	Mm/mK	0.15
Elongation	ASTM D 638	%	>400
Tensile Strength at Yield	ASTM D 638	MPa	26.5
Flexular Modulus	ASTM D 790	MPa	833

Technical Data of pipes (approximate value)

Applications:

The system can be used for various applications*:

- Potable hot and cold water piping system
- Industrial piping system
- Radiant heating and cooling system
- Compressed air piping system
- Chilled water piping system

Prestigious quality standards

Rigorously tested according to all short and long term requirements specified by ISO15874 and DIN8077/8078 while fulfilling REHAU's internal stringent lab tests and quality requirements.

Compliance Standards:

- ISO 15874
- DIN 8077 / 78
- AS/NZS 4020
- SS 375
- BS EN 1982
- BS EN 12163
- BS EN 12420



* Please check with your local sales office on the suitability of application before installation.

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We recommend that the suitability of any REHAU product for the intended application should be checked. Utilisation and processing of our products are beyond our control and are therefore exclusively your responsibility. In the event that a liability is nevertheless considered, any compensation will be limited to the value of the goods supplied by us and used by you.

Our warranty assumes consistent quality of our products in accordance with our specification and in accordance with our general conditions of sale.

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