



REHAU®

Unlimited Polymer Solutions



RAUFUSION PP-R PLUMBING SYSTEM

Safer. Smarter. More Convenient





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.

THE PERFECT FUSION OF QUALITY AND FUNCTIONALITY



No material degradation

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

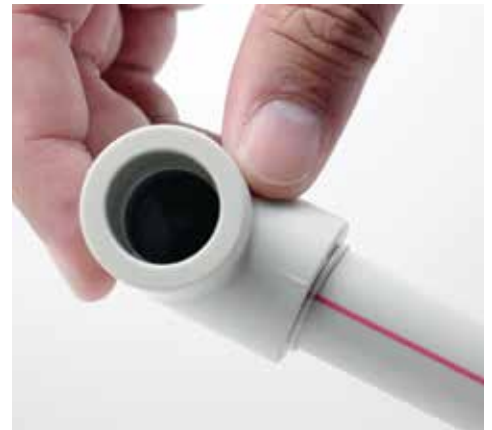
3 Steps to socket fusion



1 Fusioning



2 Aligning



3 Joining



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, RF-125 tool kits, or RAUTOOL RF125 or RF-160 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

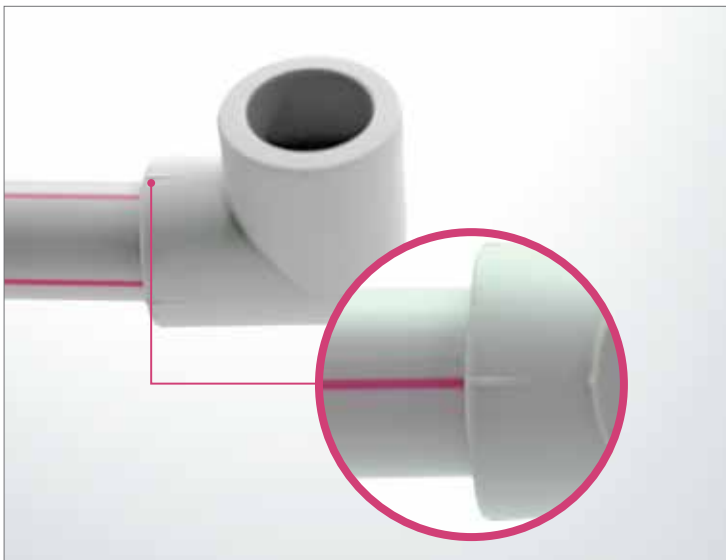
Pipe Diameter (mm)	Insertion depth (mm)	Heating time (sec)	Jointing time (sec)	Cooling time (sec)
20	14	5	4	120
25	16	6	4	180
32	18	8	6	240
40	20	12	6	240
50	23	18	6	300
63	26	25	8	360
75	28	30	8	480
90	31	40	10	480
110	33	50	10	480



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.

ACCURATE INSTALLATION GUIDELINES FOR EVERY JOINT

Quality
at your
fingertips



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.





Designed to
meet your
requirements

TECHNICAL SPECIFICATION

Pipes Dimension Table

	PN 10 / SDR 11 / S 5		PN 20 / SDR 6 / S 2,5	
Outer pipe dimensions	e	ID	e	ID
mm	mm	mm	mm	mm
20	1,9	16,2	3,4	13,2
25	2,3	20,4	4,2	16,6
32	2,9	26,2	5,4	21,2
40	3,7	32,6	6,7	26,6
50	4,6	40,8	8,4	33,2
63	5,8	51,4	10,5	42,0
75	6,8	61,4	12,5	50,0
90	8,2	73,6	15,0	60,0
110	10	90,0	18,4	73,2

PP-R Material Characteristics

Properties	Test method	Unit	Values
Melt Index 230/2.16	ISO 1133	g/10min	0.25
Density	ISO 1183	g/cm ³	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.


RAUFUSION


Product Range

RAUFUSION Pipes


Description	Art. - No.	DN in mm
 Pipe PN10	312567-001	20 x 1,9
	312568-001	25 x 2,3
	312569-001	32 x 2,9
	312570-001	40 x 3,7
	312571-001	50 x 4,6
	312572-001	63 x 5,8
	312573-001	75 x 6,8
	312574-001	90 x 8,2
	312575-001	110 x 10,0


Description	Art. - No.	DN in mm
 Pipe PN20	312586-001	20 x 3,4
	312587-001	25 x 4,2
	312588-001	32 x 5,4
	312589-001	40 x 6,7
	312591-001	50 x 8,4
	312592-001	63 x 10,5
	312593-001	75 x 12,5
	312598-001	90 x 15,0
	312602-001	110 x 18,4

Description	Art. - No.	DN in mm
 Elbow 90°	312601-001	20
	312603-001	25
	312600-001	32
	312634-001	40
	312604-001	50
	312605-001	63
	312606-001	75
	312607-001	90
	312608-001	110

Description	Art. - No.	DN in mm
 Elbow 45°	312635-001	20
	312636-001	25
	312637-001	32
	312638-001	40
	312609-001	50
	312610-001	63

RAUFUSION components

Description	Art. - No.	DN in mm
	312611-001	75
	312612-001	90
	312613-001	110

Description	Art. - No.	DN in mm
	312614-001	20
	312615-001	25
	312639-001	32
	312640-001	40
	312730-001	50
	312731-001	63
	312732-001	75
	312733-001	90
	312734-001	110


Description	Art. - No.	DN in mm
	312616-001	25-20-25
	312617-001	32-20-32
	312618-001	32-25-32
	312641-001	40-20-40
	312642-001	40-25-40
	312643-001	40-32-40
	312645-001	50-20-50
	312646-001	50-25-50
	312735-001	50-32-50
	312736-001	50-40-50
	312647-001	63-20-63
	312737-001	63-25-63
	312738-001	63-32-63
	312739-001	63-40-63
	312740-001	63-50-63
	312741-001	75-32-75
	312742-001	75-63-75
	312743-001	90-32-90
	312745-001	90-63-90
	312746-001	110-63-110


RAUFUSION components


Description	Art. - No.	DN in mm
	312619-001	25-20
	312648-001	32-20
	312620-001	32-25
	312649-001	40-20
	312650-001	40-25
	312747-001	40-32
	312748-001	50-20
	312749-001	50-25
	312750-001	50-32
	312751-001	50-40
	312752-001	63-20
	312753-001	63-25
	312754-001	63-32
	312755-001	63-40
	312756-001	63-50
	312757-001	75-63
	312758-001	90-63
	312759-001	90-75
	312760-001	110-63
	312761-001	110-75
312762-001	110-90	

Description	Art. - No.	DN in mm
	312621-001	20
	312622-001	25
	312651-001	32
	312652-001	40
	312623-001	50
	312624-001	63
	312625-001	75
	312626-001	90
	312627-001	110

RAUFUSION components


Description	Art. - No.	DN in mm
End Cap 	312653-001	20
	312654-001	25
	312655-001	32
	312656-001	40
	312657-001	50
	312658-001	63


Description	Art. - No.	DN in mm
Coupling - female thread 	314633-001	20 - Rp 1/2"
	314634-001	20 - Rp 3/4"
	314635-001	25 - Rp 1/2"
	314636-001	25 - Rp 3/4"
	314637-001	32 - Rp 3/4"
	314638-001	32 - Rp 1"
	314639-001	40 - Rp 1 1/4"
	314640-001	50 - Rp 1 1/2"
	314641-001	63 - Rp 2"


Description	Art. - No.	DN in mm
Coupling - male thread 	314642-001	20 - R 1/2"
	314643-001	20 - R 3/4"
	314644-001	25 - R 1/2"
	314645-001	25 - R 3/4"
	314646-001	32 - R 3/4"
	314647-001	32 - R 1"
	314648-001	40 - R 1 1/4"
	314649-001	50 - R 1 1/2"
	314650-001	63 - R 2"


Description	Art. - No.	DN in mm
Stop Valve 	314671-001	20
	314672-001	25
	314673-001	32


RAUFUSION components


Description	Art. - No.	DN in mm
Elbow - female thread 	314674-001	20 - Rp 1/2" (Shallow)
	314652-001	20 - Rp 1/2"
	314653-001	20 - Rp 3/4"
	314654-001	25 - Rp 1/2"
	314655-001	25 - Rp 3/4"
	314656-001	32 - Rp 3/4"
	314657-001	32 - Rp 1"

Description	Art. - No.	DN in mm
Elbow - male thread 	314658-001	20 - R 1/2"
	314659-001	20 - R 3/4"
	314660-001	25 - R 1/2"
	314661-001	25 - R 3/4"
	314662-001	32 - R 3/4"
314663-001	32 - R 1"	


Description	Art. - No.	DN in mm
Wall-mounted Elbow - female thread 	314651-001	20 - Rp 1/2"

Description	Art. - No.	DN in mm
Tee - female thread 	314664-001	20 - Rp 1/2"-20
	314665-001	25 - Rp 1/2"-25
	314666-001	25 - Rp 3/4"-25
	314667-001	32 - Rp 3/4"-32
	314668-001	32 - Rp 1"-32

Description	Art. - No.	DN in mm
Tee - male thread 	314669-001	20 - R 1/2"-20
	314670-001	25 - R 1/2"-25

Description	Art. - No.	DN in mm
Adaptor Union - male thread 	314675-001	20 - R 1/2"
	314676-001	25 - R 3/4"
	314677-001	32 - R 1"
	314678-001	40 - R 1 1/4"
	314679-001	50 - R 1 1/2"
	314680-001	63 - R 2"

RAUFUSION components

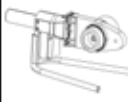
Description	Art. - No.	DN in mm
Adaptor union female 	314681-001	20 - Rp 1/2"
	314682-001	25 - Rp 3/4"
	314683-001	32 - Rp 1"
	314684-001	40 - Rp 1 1/4"
	314685-001	50 - Rp 1 1/2"
	314686-001	63 - Rp 2"


Description	Art. - No.	DN in mm
Flange Adaptor 	312709-001	63
	312710-001	75
	312711-001	90
	312724-001	110


Description	Art. - No.	DN in mm
REHAU PPR-PEX Adaptor 	312725-001	20-16
	312726-001	20-20
	312727-001	25-25
	312728-001	32-32
	312729-001	40-40

Description	Art. - No.	DN in mm
Short Bypass Bend 	314050-001	20
	314060-001	25
	314070-001	32

RAUFUSION tools

Description	Art. - No.	DN in mm
RAUTOOL RF63 Kit 	217913-001	20-32
	217914-001	20-63

Description	Art. - No.	DN in mm
RAUTOOL RF125 Kit 	217919-001	75-110

Description	Art. - No.	DN in mm
RAUTOOL RF125 Station Kit 	217929-001	20-110

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