SCG PP-R PIPE

For Cold and Hot Water Supply System

"Solid Solidification, Homogeneous Welding, Easy Installation and High Reliability"

DVGW CERT

TÜV SÜD DIN 8078

NSF Certified to NSF/ANSI/CAN 61 & 372

Made in Thailand

SCG PIPE LIBRARY
For Android System
For iOS System

SCG PIPE WEB

YOUTUBE
NPI Pipe Business

Nawaplastic Industries Co., Ltd., an affiliate of SCG Chemicals, the “PVC” pipe manufacturer since 1970 is a highly experienced and full commitment-oriented company with the mission to meet service demands and provide the utmost satisfaction for our customers, the continuous quality improvement of the products is our main emphasis. In order to be the leader in piping systems plumbing-drainage, hot water plumbing, electrical and telephone conduit, agriculture and public utility, product development is also on our focus to create a wide-range variety of products - pipes, fittings, and accessories for full and comprehensive services to be suitable for all kinds of uses with a support of our expert teams for all kinds of piping consultancy.

SCG PP-R Pipes and Fittings

The PP-R pipes and fittings are manufactured from PP-R 80 pellets (polypropylene random copolymer 80), EU-standard high-quality materials capable of withstanding up to 20 bars and 95°C. Bonding is homogeneous with no leakage for cold and hot water supply system, chilled water system, as well as air duct system.

How "SCG pipe" Superior in Every Way Unmatched Quality

* Systematic quality control by our expert teams with every fine bit of detail.
* World-class high-tech machine-made products resulting in high quality and environment friendly.

Best Services

* Pre-sales and after-sales service by our expert teams
* Fast and nationwide delivery

Outstanding Availability

* A wide and dynamic variety of pipes, fittings, and accessories, meeting customer demands.
* With the complement to all our products by our business alliance supports.

Product properties (SCG PP-R Pipes and Fittings) For Cold and Hot Water Supply System

International Certification

The SCG PP-R pipes are world-class international institutes certified such as TÜV SÜD, DVGW and. NSF/ANSI/CAN 61&372).

20-Bar Maximum Allowable Pressure

Capable of withstanding up to 20 bars as the pipes and fittings are manufactured from high-quality materials according to the EU standards and German standards — DIN 8077, DIN 8078, and DIN 16962-5 (fittings) manufacturing processes, all of which are EU recognized product standards.

95°C Maximum Allowable Temperature

No damage or contaminants to be hassled with owning to the chemical properties of the plastics, making the pipes and fittings capable of withstanding high temperatures up to 95°C, this makes the pipes and fittings ideal for hot water supply pipes for consumption.

Clean, rust-free, hassle-free heavy metals and contaminants

With the plastic properties of the PP-R, you will get clean, safe-to-drink, pure, and odor-free water with no rust, heavy metals, and other contaminants in it. The pipes and fittings are opaque resulting in algae-free pipes.

Energy-saving, Better Heat Conservation than the Copper Pipes.

The PP-R pipes have an insulator property resulting in better heat conservation than the metal pipes such as steel or copper pipes by conserving more heat during the flow of hot water in the line thus achieving energy-saving, workload reduction in a water heater, and electricity bill reduction.

Long Lifespan

Sturdy, strong, and resistant to chemical corrosion – no erosion and rust-free as the PP-R pipes are manufactured from excellent-quality PP-R plastic.

Lightweight and Cost-saving compared to Copper Pipes

The PP-R pipes are cheaper and lightweight than the copper pipes, making the pipes much more cost-effective price combined with the good efficiency, easy installation, and transportation.

Easy-to-install, solid solidification, no leakage

The PP-R pipes are easy to install by a PP-R welding tool to connect the pipes and fittings by applying heat, creating homogenous solidification resulting in no leakage problems.

NSF is an independent U.S. federal agency tasked by WHO to serve as an international standardization certification body for drinking water manufacturing standards.

DVGW is a German standardization body for the gas and water industry, providing testing and thorough quality inspection.

SCG PP-R Pipes and Fittings for Cold and Hot Water Supply System

SCG PP-R Pipes

Manufactured according to DIN 8077 and DIN 8078.

Cold Water Supply System

Operating temp. : 3-60˚C
Max. operating pressure : PN 10 or 10 bars
Color : Green with "blue" stripes
Length : 4 m.

Cold Water Supply System

Operating temp. : 3-95˚C
Max. operating pressure : PN 20 or 20 bars
Color : Green with "red" stripes
Length : 4 m.

Cold Water Supply System

Operating temp. : 3-95˚C
Max. operating pressure : PN 20 or 20 bars
Color : Green with "gray" stripes
Length : 4 m.

Size [mm(in)]	Outside Diameter (mm)	Thickness (mm)		Weight (Kg/m)		
		SDR 11 (PN 10) ●	SDR 6 (PN 20) ● ●	SDR 11 (PN 10) ●	SDR 6 (PN 20) ●	SDR 6 (PN 20) ●
20 (1/2")	20.0 +0.3/-0	1.9 +0.4/-0	3.4 +0.6/-0	0.12	0.18	0.17
25 (3/4")	25.0 +0.3/-0	2.3 +0.5/-0	4.2 +0.7/-0	0.18	0.27	0.26
32 (1")	32.0 +0.3/-0	2.9 +0.5/-0	5.4 +0.8/-0	0.27	0.45	0.43
40 (1 1/4")	40.0 +0.4/-0	3.7 +0.6/-0	6.7 +0.9/-0	0.43	0.70	0.67
50 (1 1/2")	50.0 +0.5/-0	4.6 +0.7/-0	8.3 +1.1/-0	0.63	1.05	1.03
63 (2")	63.0 +0.6/-0	5.8 +0.8/-0	10.5 +1.3/-0	1.03	1.62	1.65
75 (2 1/2")	75.0 +0.7/-0	6.8 +0.9/-0	12.5 +1.5/-0	1.30	2.34	2.39
90 (3")	90.0 +0.9/-0	8.2 +1.1/-0	15.0 +1.7/-0	2.00	3.38	3.47
110 (4")	110.0 +0.9/-0	10.0 +1.2/-0	18.3 +2.1/-0	3.04	5.05	-
160 (6")	160.0 +1.5/-0	14.6 +1.7/-0	26.6 +2.9/-0	6.90	10.70	-

Note:
1. SDR (Standard dimension ratio) = a ratio between outer diameter and pipe's thickness (d/s).
2. PN (Nominal pressure) = a maximum operating pressure.

PP-R SCG Fittings

Manufactured according to DIN 8077 and DIN 8078.


Straight


45˚elbow


90˚elbow

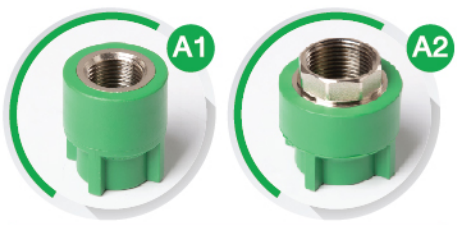

Tee


Reducer


90˚ elbow reducer


Tee reducer


Cap

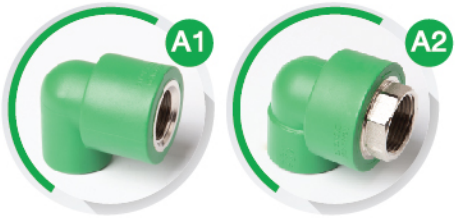


Male-threaded coupling

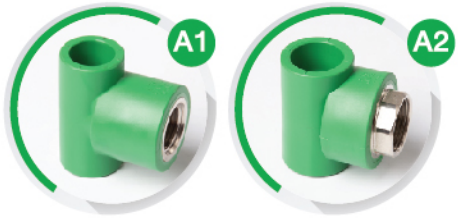
Note:
1. Working pressure of fittings are 20 bars (PN20)
2. Maximum pressure of 160-mm. fittings (6") is 16 bars (PN 16).

SCG PP-R Fittings

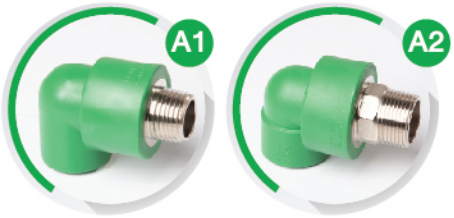
Manufactured according to DIN 16962-5



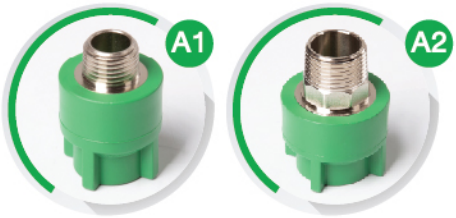
90° female-threaded elbow



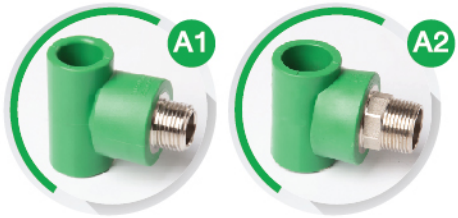
Female-threaded tee



90° male-threaded elbow



Male-threaded coupling



Male-threaded tee

Female-threaded union

Male-threaded union

90° female-threaded elbow (embedded)

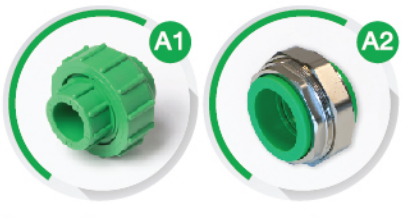
90° female-threaded mixer

Gate valve

Ball-valve union

Male-threaded ball-valve union

Female-threaded ball-valve union



Union

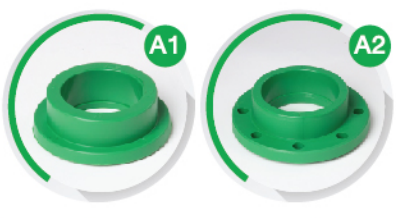
Male-threaded plug

Cross

Cross pipe

Clip

Clamp



Flange adaptor

Steel flange

Rubber gasket

Saddle bushing

PP-R saddle bit

PP-R saddle welding head

Repairing rod

PP-R welding rod

Note:

1. PP-R is imported products from our partnerships.
2. Maximum pressure of 160-mm. fittings (6") is 16 bars (PN 16).
3. Threaded fittings are made of nickel-plated brass.

PP-R Welding head

PP-R welder

SCG PP-R Fittings

Manufactured according to DIN 16962-5

PP-R Electrofusion Fittings - PN20

Straight EF

45° elbow EF

90° elbow EF

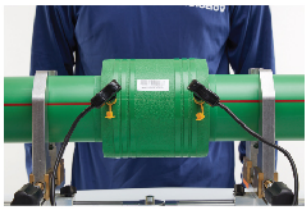
Straight reducer EF

Tee EF

Tee reducer EF

How to Connect PP-R Pipes and Electro-fusion Fittings

1. Measure to find a slipping-on space (from the edge of fittings to the seat inside), then mark the points on the pipe.



4. Insert the pipe and fittings together, then attach the terminals to the fittings, next use the QR code reader to scan the barcode, after that, start the bonding and solidification process.

2. Strip and peel the surface to remove grease, dust, and moisture by stripping and peeling over the mark about 1 cm.

5. After the solidification is completed, a pair of indicator sticks will pop up as an indication of completion, leaving the pipe to cool off as the indicated period.

3. Use a non-oil-based cleaner and a clean lint-free cloth or piece of tissue to wipe the surface and inside of the fittings to be bonded together.

Electro-fusion welder

QR Code

Demonstration videos for connecting PP-R pipes and fittings

Note:

- Please refer to the detailed steps of how to connect and bonding pipes and fittings from the manual and ask for any advice from service technicians from our company.

How to Connect SCG PP-R Pipes

1. Use a metal saw or pipe cutter to cut the pipes to a required length.

2. Measure to find the depth for allowing the fittings to be slipped on, then make a mark

3. Insert the pipe and fitting into the welder simultaneously by pushing the pipe onto the mark, then heat up the welder based on the size of the pipe and heating duration as rated.

4. Bring the heated pipe and fitting to insert together onto the mark all the way, hold the pipe and fitting for a short duration, then leave them to be cooled off.

5. After the duration is reached, the pipe and fitting can be immediately used in the installation.

QR Code
Demonstration videos for connecting PP-R pipes and fittings

Note:
- It is advised to wear a pair of gloves and a mask during the PP-R pipe connection.

Cautions

1. Please read the manual before use.
2. To be used with up-to-standard accessories
3. Use the products based on their quality levels in line with the types and properties of usage, if not, deformation and leakage might be caused.
4. Avoid using products with certain chemicals as they might be harmful to the body and property, in case of necessity, always refer to the solution resistance tables in the manual if used.
5. Disposal should be done following official regulations and incineration is prohibited as it may bodily harm and property damage.
6. After the pipe installation, pressure testing according to pressure testing standards should be conducted. In case of the pressure exceeds the rating, bodily injuries and property damage might occur.
7. Pipe banding ties and packages are served as a tie of pipes and their container only, they should not be used in other nature as bodily injuries and property damage might occur.
8. In case of using beyond specifications as dictated in the manual, please consult with experts or company representatives before using all the times.

For more information, please contact at this telephone number - 02-555-0888

Heating Duration Table for Connecting SCG PP-R Pipes and Fittings

Unit (mm.) (inch)	Depth (mm.)	Heating Duration (second)		Solidification and Bonding Duration (second)	Cooling-off Duration (minute)
		PN 10	PN 20		
20 (1/2")	14.0	3	5	4	2
25 (3/4")	15.0	5	7	4	2
32 (1")	17.0	6	8	6	4
40 (1 1/4")	19.0	12		6	4
50 (1 1/2")	23.0	18		6	4
63 (2")	24.0	24		6	6
75 (2 1/2")	26.0	30		8	8
90 (3")	29.0	40		8	8
110 (4")	32.5	50		10	8
160 (6")	43.0	80		15	15

Achieved Standards and Quality Tests

Trusted Quality by Upstream-to-Downstream Quality


Material Control and Inspection

Use High-quality Machine from Germany to Manufacture


Quality Control during the Manufacturing


Quality Testing before Distribution

Certificate


First and ever brand to obtain DVGW certification for both manufacture and distribution


PP-R fittings passed the DVGW tests and achieved DVGW certification


Achieving NSF certifications pipe manufacture standards


Passing TUV tests and achieving TUV certification


ISO 9001:2015 Quality management systems

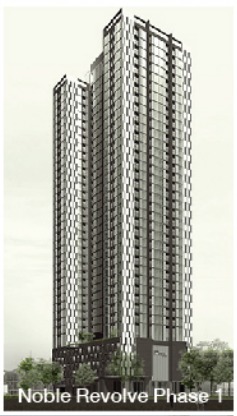

ISO 14001:2015 Environment management systems

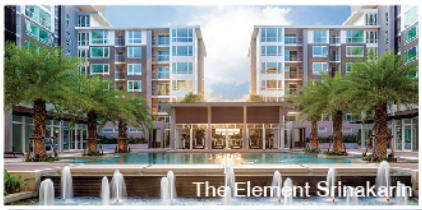

ISO 45001:2018 OH&S management systems

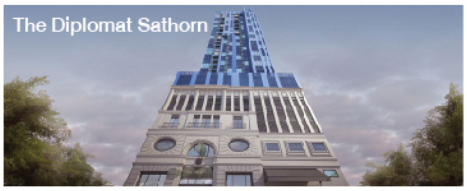

ISO 50001:2018 Energy management systems

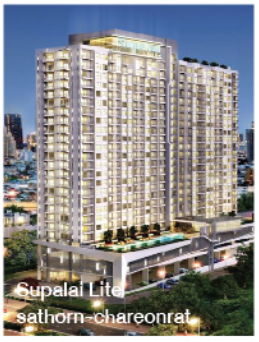
Reference Projects

“SCG Pipe”, High-quality Product Trusted by Leading Projects









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Available at leading construction material stores.
SCG Contact Center 02-586-2222
Email: contact@scg.co.th, www.scgbuildingmaterials.com

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พิมพ์ครั้งที่ 1