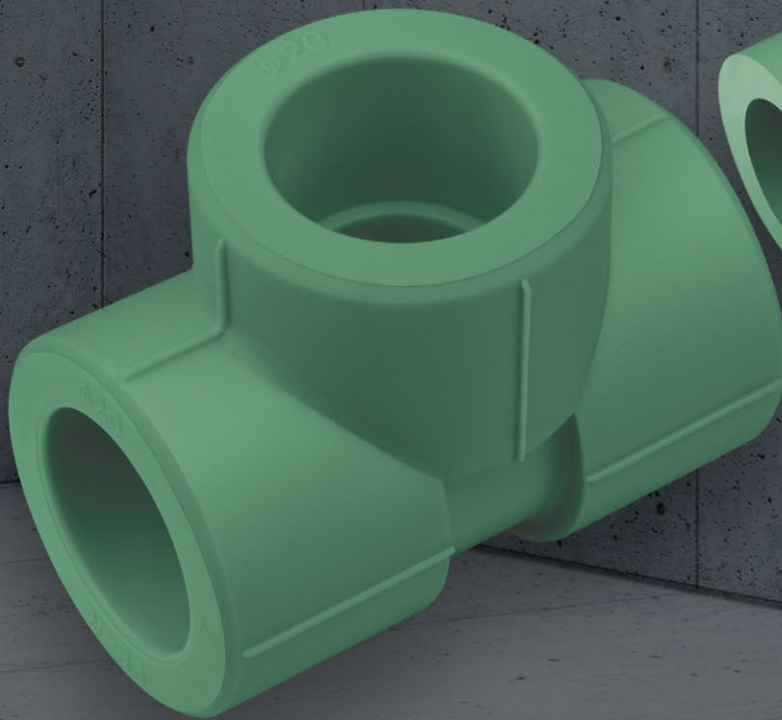




Install your **future**



SYSTEM **KAN-therm**

PP Green

High quality with
reasonable price

EN 24/07

Ø 20-200 mm

1 SYSTEM **KAN-therm** PP Green

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1 SYSTEM **KAN-therm** PP Green

1.1 **General information**

KAN-therm PP Green is a complete installation system consisting of pipes and fittings made of polypropylene PP-R (type 3) or PP-RCT (type 4), a thermoplastic material, with diameter range: 20–200 mm. Connecting elements is performed using the welding technique (thermal polyfusion) and electric welders. This welding technique creates continually uniform joints and therefore guarantees exceptional tightness and mechanical durability of the installation. The system is designed for indoor water supply installations (hot and cold potable water), heating and technological installations.

The KAN-therm PP Green system is characterized by:

- high hygiene of all products (physiological and microbiological neutrality),
- high chemical resistance,
- resistance to material corrosion,
- low thermal conductivity (high thermal insulation of pipes),
- low specific weight,
- resistance to scaling,
- muffling vibrations and noises,
- mechanical durability,
- uniform joints,
- high usage durability.

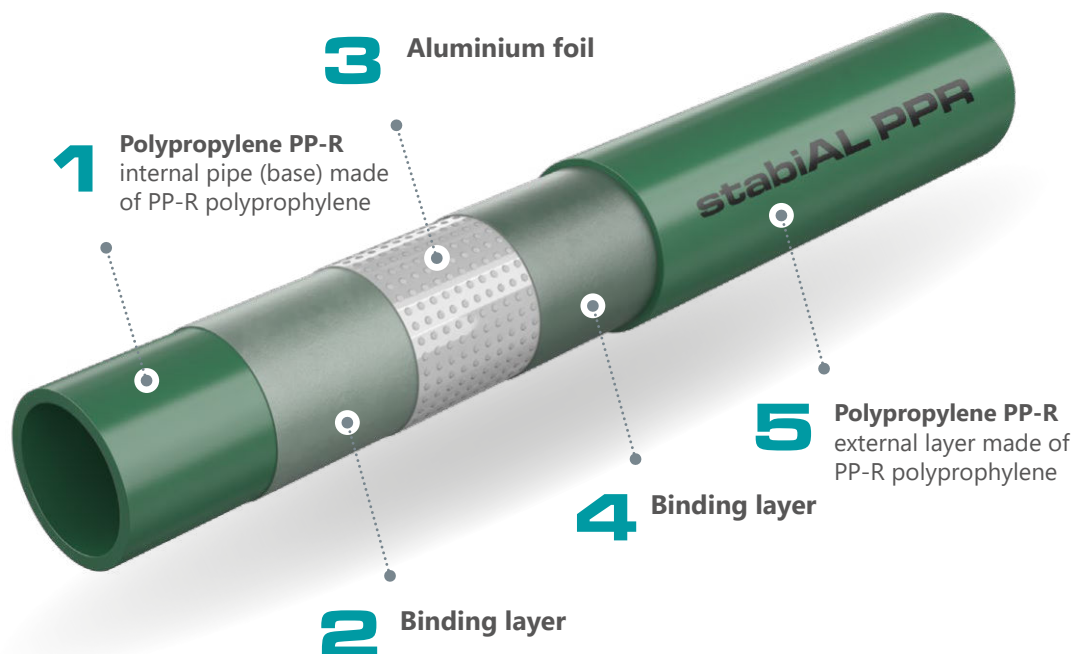
1.2 KAN-therm PP Green pipes

KAN-therm PP Green pipes and fittings are manufactured of high quality PP-R polypropylene (random copolymer of polypropylene), formerly marked as polypropylene type 3. The offer also includes pipes and fittings made of the latest generation material - PP-RCT (Random Crystallinity Temperature Polypropylene).

In terms of structure, we differentiate following types of pipes: uniform (homogenous PPR) and compound pipes: stabilized with a layer of aluminum, the so-called stabiAL PPR pipes or multilayer pipes reinforced with a layer of glass fiber, the so-called stabiGLASS PPR or PPRCT pipes.

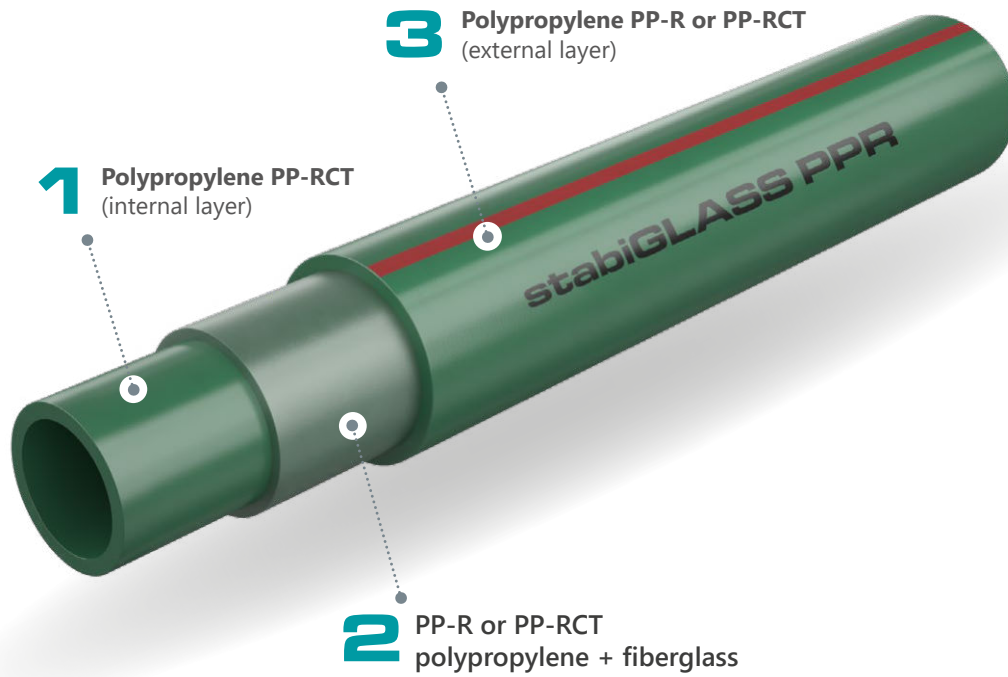
KAN-therm PP Green stabiAL PPR pipes consist of a PP-R base pipe made of polypropylene, which is coated with a layer of perforated aluminum tape, 0,13 mm thick, overlapping and additionally covered with a protective layer of polypropylene. For increased durability of the aluminum-polypropylene joint, double adhesive binding layers are applied.

The basic function of the aluminum insert in stabiAL PPR compound pipes is to significantly reduce the thermal elongations of pipes ($\alpha = 0,03 \text{ mm/m} \times \text{K}$; for uniform pipes $\alpha = 0,15 \text{ mm/m} \times \text{K}$). The aluminum layer also serves as additional partial protection against the diffusion of oxygen from the environment.



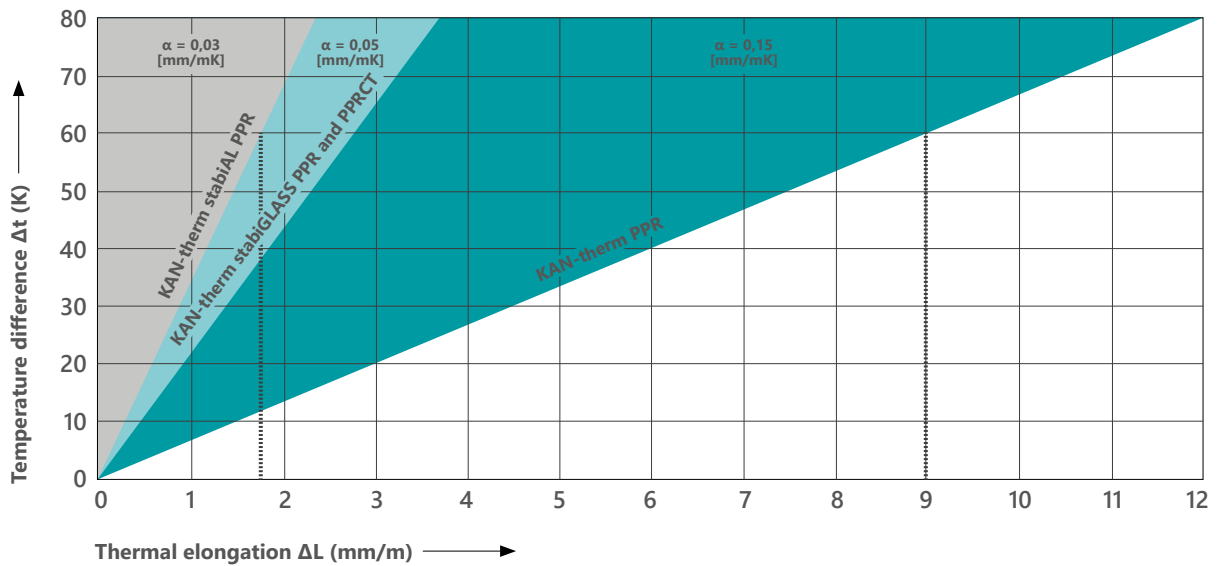
Structure of a stabiAL PPR compound pipe

KAN-therm PP Green stabiGLASS PPR or PPRCT pipes also feature multilayer structure. Their internal layer, which is reinforced with glass fibre (40% of pipe wall thickness) determines very high durability of the pipe and its low thermal elongation $\alpha=(0,05 \text{ mm/m} \times \text{K})$.



Structure of a stabiGLASS PPR and PPRCT*

*stabiGLASS PPRCT pipes (125-200 mm) are not marked with a red strip.



Comparison of the thermal expansion factor in uniform PPR and both stabiAL PPR and stabiGLASS PPR or PPRCT pipes.

Physical properties of KAN-therm PP Green pipe material

Property	Symbol	Unit	Value	
			PPR	PPRCT
linear elongation coefficient	α	mm/m × K	0,15 for uniform pipes	
			0,03 for stabiAL PPR pipes	
			0,05 for stabiGLASS PPR pipes	
thermal conductivity	λ	W/m × K	0,24	
density	ρ	g/cm ³	0,90	
elasticity module		N/mm ²	900	850
minimum bend radius	R _{min}	mm	8 × De	
internal wall roughness	k	mm	0,007	

Pipe marking, color

KAN-therm PP Green pipes are marked in a continuous manner with inscriptions with a 1-meter span, containing i. e. the following indications:

Marking description	Example of marking
Name of manufacturer and/or trademark:	KAN, KAN-therm
Nominal external diameter x wall thickness	16 × 2,7
Dimension class	A
Pipe structure (material)	PP-R
Pipe code	04000316
Number of Standard or Technical Certificate	EN 15874
Pressure/dimension ratio	PN20 SDR6
Application class/es with design pressure	Class 1/10 bar – 2/8 bar – 4/10 bar – 5/6 bar
Date of production	18.08.09
Other manufacturer markings, e.g. running meter, batch number	045 m



Notice – other, additional markings, e.g. numbers of certificates may also be inscribed on the pipe.

Pipe color: green;

Pipe surface: mat (uniform and stabiGLASS PPRCT) or coarse (stabiAL PPR pipes). stabiGLASS PPR pipes are green with a red stripe.

Pipes are supplied 4 m long bars.

Dimension parameters of KAN-therm PP Green pipes

KAN-therm PP Green system offers five types of pipes, differing in terms of wall thickness and structures (compound pipes):

PPR PN16 pipes	(20 –110 mm)
PPR PN20 pipes	(20 –110 mm)
stabiAL PPR PN20 pipes	(20 –110 mm)
stabiGLASS PPR PN16 pipes	(20 –110 mm)
stabiGLASS PPRCT PN16 pipes	(125 –200 mm)



Tab. 1. KAN-therm PP Green PPR PN16 pipes (S3,2/SDR7,4)

Size [mm]	External diameter D [mm]	Wall thickness s [mm]	Internal diameter d [mm]	Capacity by unit [l/m]	Weight by unit [kg/m]
20 x 2,8	20	2,8	14,4	0,163	0,148
25 x 3,5	25	3,5	18,0	0,254	0,230
32 x 4,4	32	4,4	23,2	0,415	0,370
40 x 5,5	40	5,5	29,0	0,615	0,575
50 x 6,9	50	6,9	36,2	1,029	0,896
63 x 8,6	63	8,6	45,8	1,633	1,410
75 x 10,3	75	10,3	54,4	2,307	2,010
90 x 12,3	90	12,3	65,4	3,358	2,870
110 x 15,1	110	15,1	79,8	4,999	4,300

Tab. 2. KAN-therm PP Green PPR PN20 pipes (S2,5/SDR6)

Size [mm]	External diameter D [mm]	Wall thickness s [mm]	Internal diameter d [mm]	Capacity by unit [l/m]	Weight by unit [kg/m]
16 x 2,7	16	2,7	10,6	0,088	0,110
20 x 3,4	20	3,4	13,2	0,137	0,172
25 x 4,2	25	4,2	16,6	0,216	0,266
32 x 5,4	32	5,4	21,2	0,353	0,434
40 x 6,7	40	6,7	26,6	0,556	0,671
50 x 8,3	50	8,3	33,4	0,866	1,050
63 x 10,5	63	10,5	42,0	1,385	1,650
75 x 12,5	75	12,5	50,0	1,963	2,340
90 x 15,0	90	15,0	60,0	2,827	3,360
110 x 18,3	110	18,3	73,4	4,208	5,040

Tab. 3. KAN-therm PP Green stabiAL PPR PN20 pipes (S2,5/SDR6)

Size [mm]	External diameter D [mm]	Wall thickness s [mm]	Internal diameter d [mm]	Capacity by unit [l/m]	Weight by unit [kg/m]
16 x 2,7	16 (17,8)*	2,7	10,6	0,088	0,160
20 x 3,4	20 (21,8)*	3,4	13,2	0,137	0,218
25 x 4,2	25 (26,9)*	4,2	16,6	0,216	0,328
32 x 5,4	32 (33,9)*	5,4	21,2	0,353	0,520
40 x 6,7	40 (41,9)*	6,7	26,6	0,556	0,770
50 x 8,3	50 (51,9)*	8,3	33,4	0,866	1,159
63 x 10,5	63 (64,9)*	10,5	42,0	1,385	1,770
75 x 12,5	75 (76,9)*	12,5	50,0	1,963	2,780
90 x 15,0	90 (92)*	15,0	60,0	2,830	3,590
110 x 18,3	110 (112)*	18,3	73,4	4,210	5,340

* in brackets: average external diameter of the pipe with Al foil and protective shield

External dimensions of compound pipes with aluminum foil differ from the dimensions of uniform pipes (external diameter is slightly bigger due to the thickness of Al foil and the thickness of the PP-R protective shield). The nominal size of these pipes corresponds to the external diameters of base pipes.

Tab. 4. KAN-therm PP Green stabiGLASS PPR PN16 pipes (S3,2/SDR7,4)

Size [mm]	External diameter D [mm]	Wall thickness s [mm]	Internal diameter d [mm]	Capacity by unit [l/m]	Weight by unit [kg/m]
20 x 2,8	20	2,8	14,4	0,163	0,160
25 x 3,5	25	3,5	18,0	0,254	0,250
32 x 4,4	32	4,4	23,2	0,415	0,430
40 x 5,5	40	5,5	29,0	0,615	0,650
50 x 6,9	50	6,9	36,2	1,029	1,000
63 x 8,6	63	8,6	45,8	1,633	1,520
75 x 10,3	75	10,3	54,4	2,307	2,200
90 x 12,3	90	12,3	65,4	3,358	3,110
110 x 15,1	110	15,1	79,8	4,999	4,610

Tab. 5. KAN-therm stabiGLASS PPRCT PN16 (S4/SDR9)

DN	External diameter D [mm]	Wall thickness s [mm]	Internal diameter d [mm]	Capacity by unit [l/m]	Weight by unit [kg/m]
125 x 14,0	140	14	97	12,27	4,48

Tab. 6. KAN-therm stabiGLASS PPRCT PN16 (S5/SDR11)

DN	External diameter D [mm]	Wall thickness s [mm]	Internal diameter d [mm]	Capacity by unit [l/m]	Weight by unit [kg/m]
160 x 14,6	160	14,6	130,8	20,1	6,78
200 x 18,2	200	18,2	163,6	31,4	10,64

Explanation of markings of uniform PPR pipes

S	dimension series according to ISO 4	$S = (D-s)/2s$
SDR	Standard Dimension Ratio	$SDR = 2 \times S + 1 = D/s$
D(dn)	nominal external pipe diameter	
s(en)	nominal wall thickness	in brackets: markings acc. to standard
PN	Pressure nominal	

S	SDR	PN
5	11	10
3,2	7,4	16
2,5	6	20

1.3 Fittings and other elements of the system

The basic method of executing joints in polypropylene installations is thermal welding which, thanks to the use of proper fittings, allows connecting pipes (pipe couplings), closing the pipeline (end caps), redirecting the pipeline (elbows, bends, passing loops, tees), changing the diameter of the pipe (couplings and reducers), executing branch-offs (tees, four-ways), connecting devices and fixtures (collar joints and metal threaded joints). Ball valves with polypropylene couplings serve as the joints here.

All of the above mentioned elements allow connecting fittings to pipes or connecting two or more pipe sections, forming inseparable joints, requiring the pipe to be cut off if there is a need for disassembling the fitting. In order to execute a separated joint, sleeves for collar joints and union adapters must be used. All joints are universal and may be used with all types of KAN-therm PP Green pipes, irrespective of their wall thickness or structure.

All of the KAN-therm PP Green system fittings are designed in PN20 pressure rating.

KAN-therm PP Green system, apart from pipes, consists of the following elements:

- fittings (uniform) made of PP-R (20-110 mm) or PP-RCT (125-200 mm) polypropylene (couplings, reducers, elbows, nipple elbows, tees),
- couplings with female and male metal threads 1/2" – 3" – used for connecting to devices and fixtures,
- sleeves for collar joints with loose collars, union adapters – for detachable joints,
- expansion bends, mounting plates, ball valves,
- mounting elements – plastic or metal with rubber insert clamps,
- tools for pipe bending, treatment and welding.

1.4 Scope of use

Thanks to the properties of PP-R and PP-RCT material, the KAN-therm PP Green installation system has a wide spectrum of applications:

- cold (20 °C/1,0 MPa) and hot (60 °C/1,0 MPa) water installations in housing buildings, hospitals, hotels, office buildings, schools,
- central heating installations (temp. up to 90 °C, working pressure up to 0,6 MPa),
- compressed air installations,
- balneology installations,
- installations in agriculture and horticulture,
- pipelines in the industry, e.g. for transporting aggressive media and food products,
- ship installations.

The scope of use assumes new installations, as well as repairs, modernization and exchange projects.

Thanks to special properties of polypropylene (physiological and microbiological neutrality, resistance to corrosion, resistance to scaling, immunity to vibrations, very good thermal insulation of pipes), KAN-therm PP Green system installations are widely used, particularly in water supply installations, when mounting water supply risers and installation levels. This refers to both hot and cold tap water installations in housing buildings, hospitals, hotels, office buildings, schools, on ships, etc.



KAN-therm PP Green installation

KAN-therm PP Green installations are perfect for replacing old, corroded water supply installations. They are also used in renovations of old heating installations.

Pipes and joints in the KAN-therm PP Green system are in full compliance with applicable standards, which guarantees their long-term and reliable operation as well as full security of assembly and use of the installation.

Certificates and technical approvals are available at www.kan-therm.com.

The operational parameters and scopes of use of KAN-therm PP Green pipe installations in heating and water supply installations are presented in the table.

Application (acc. to ISO 10508)	Total time of exploitation, years	Time of operation years/hours	Operating temperature T °C	PPR		PPRCT	
				SDR6 (S2,5), SDR6 (S2,5) stabiAL	SDR7,4 (S3,2), SDR7,4 (S3,2) stabiGLASS	SDR9 (S4)	SDR11 (S5)
				Maximum operating pressure (bar)			
Hot domestic water [application class 1] $T_d / T_{max} = 60/80$ °C	50	49 1	60 80	10	8	10	8
	Time of operation at T_{mal}	100 hours	95				
Hot domestic water [application class 2] $T_d / T_{max} = 70/80$ °C	50	49 1	70 80	8	6	8	6
	Time of operation at T_{mal}	100 hours	95				
Radiant heating, low temperature radiator heating [application class 4] $T_d / T_{max} = 60/70$ °C	50	2,5	20	10	10	8	6
		20	40				
		25	60				
		2,5	70				
Time of operation at T_{mal}	100 hours	100					
Radiator heating [application class 5] $T_d / T_{max} = 80/90$ °C	50	14	20	6	6	6	4
		25	60				
		10	80				
		1	90				
Time of operation at T_{mal}	100 hours	100					

Tab. 7. Maximum operating pressure of PPR and PPRCT pipes depending on the temperature and service life of the installation (safety factor C=1,25)

Temperature [°C]	Time [years]	PP-R pipes		PP-RCT pipes	
		SDR7,4 / S3,2	SDR6 / S2,5	SDR11 / S5	SDR9 / S4
10	1	33,1	42,5	23	28,8
	5	31,2	40	22,3	28
	10	30,5	39	22	27,6
	25	29,4	37,7	21,6	27,1
	50	28,7	36,7	21,4	26,8
20	1	28,3	36,2	20	25,1
	5	26,6	34,1	19,3	24,4
	10	25,9	33,1	19,1	24
	25	25	32	18,7	23,5
	50	24,4	31,2	18,5	23,2
40	1	20,4	26,2	14,9	18,7
	5	19,1	24,5	14,4	18
	10	18,6	23,8	14,2	17,8
	25	17,9	22,8	13,8	17,4
	50	17,4	22,2	13,7	17,2
60	1	14,6	18,7	10,8	13,6
	5	13,6	17,4	10,3	13
	10	13,2	16,8	10,2	12,7
	25	12,6	16,1	10	12,5
	50	12,2	15,6	9,7	12,2
70	1	12,2	15,7	9	11,4
	5	11,4	14,5	8,6	10,9
	10	11	14	8,5	10,7
	25	9,6	12,2	8,3	10,4
	50	8	10,3	8,2	10,2
80	1	10,3	13,2	7,6	9,5
	5	9,1	11,6	7,2	9
	10	7,7	9,8	7,1	8,9
	25	6,1	7,9	6,8	8,6
	50	5,2	6,7	6,7	8,5
90	1	8,6	11	6,2	7,8
	5	6	7,7	5,9	7,4
	10	5	6,5	5,8	7,3
	25	4,1	5,2	5,6	7,1
95	1	7,3	9,4	5,6	7,1
	5	4,9	6,4	5,4	6,7
	10	4,2	5,3	5,3	6,6



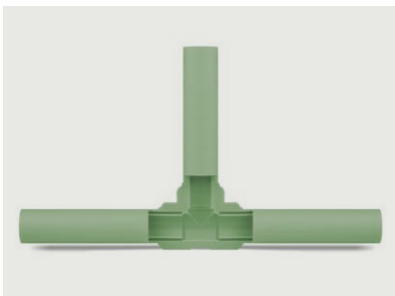
Note

Conditions of using the KAN-therm PP Green system in installations other than heating and water supply installations - chemical resistance.

Elements of the KAN-therm PP Green system are characterized by high chemical resistance. You should remember, however, that the chemical resistance feature of polypropylene depends on the type and concentration of substances, as well as other factors, e.g. temperature and pressure of the medium, and ambient temperature. Chemical resistance of the couplings inserts (metal) must not be compared to the resistance of PP-R or PP-RCT elements. Due to this fact, transition couplings are not applicable for all industrial usages. Before deciding on the application of KAN-therm PP Green pipes and joints in installations conducting substances different than water, please contact the KAN's Technical Department.

1.5 Technique of connecting KAN-therm PP Green installations – welded joints

Welding is the basic technology used for connecting KAN-therm PP Green polypropylene pipelines. The welding process is based on plasticizing the elements to be connected under high temperature (to a certain depth), and then joining, under right pressure, the plasticized layers and, finally, cooling the entire area to a temperature of hardening.



Cross-section of a welded joint



KAN-therm PP Green tools

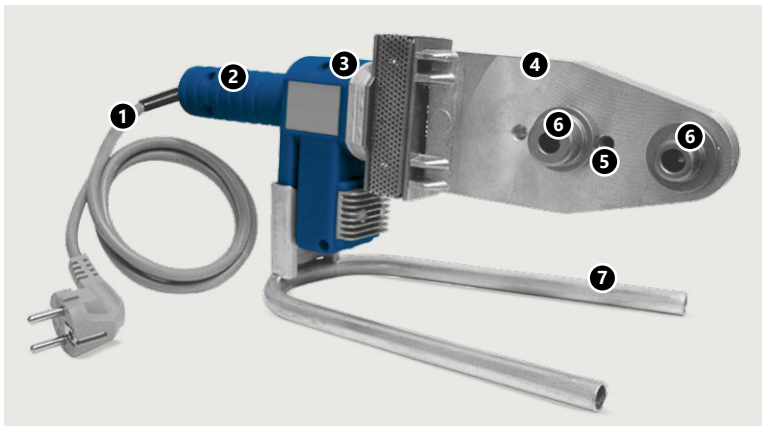
Plasticization of layers to be connected takes place at 260 °C in a temporal function, taking into account the need to warm up a layer of material (external surface of the pipe and internal surface of the coupling) and a required depth. The essence of the process of welding polypropylene, also called thermal polyfusion, is relocating and mixing the polymer chains of plasticized and then pressed layers of elements being connected. Maintaining proper conditions in this process (temperature, time, pressure force and area, cleanness of elements being connected) guarantees proper execution of the joint and its durability.

The process of heating (plasticizing) takes place with the use of an electric welder equipped with a heating plate with exchangeable (for each diameter) heating inserts covered with Teflon.

Depending on the diameter of the pipe, heating takes from 5 to 50 seconds. After this time, heated elements are removed from the inserts and the pipe is immediately mounted (without rotation!) inside the coupling at a depth which must be marked earlier. It is then that the particles of both elements penetrate one another and mix. A joint formed through thermal welding has impressive mechanic durability, exceeding the durability of the pipe itself (the cross section of the joint exceeds the cross section of the pipe).

Tools – preparation of the welder

In order to execute a polypropylene joint, use a welder designed to work under 230 V. This device consists of a power supply cable (1), a grip (2) with an in-built thermostat and controls (diodes) (3) and a heating plate (4), which heating inserts (6) are mounted to. The power of KAN-therm welders is 800 or 1600 W.



Welder elements
1. Power supply cable
2. Welder grip
3. Power supply and thermostat controls
4. Heating plate
5. Openings in the heating plate
6. Heating inserts
7. Stand

Welding temperature 260 °C

- Before starting any works, read the instruction manual to the corresponding welder type.
- Heating inserts (coupling and heating rod) must be screwed tightly using a wrench included in the set. They must contact the surface of the heating plate tightly. The inserts must not extend over the edge of the heating plate.
- Secure the inserts against scratching or polluting. Clean all pollutions with a natural cloth and rubbing alcohol.
- Connection to power supply is signaled by the lamp or diode on the casing lighting up.
- The required welding temperature (on the surface of inserts) is 260 °C. The temperature of the heating plate is higher (280-300 °C). When the device reaches the correct welding temperature, a thermostat control most often (depends on the model of the welder) signals it.
- After finishing all works, disconnect the welder from power supply and leave it to cool down. Do not cool the welder rapidly, e.g. using cold water, since this may lead to the damage of heating circuits.
- Do not use a power supply cable of small cross section or one which is too long. Voltage fluctuations might disturb the proper operation of the device.
- Do not use the power supply cable to transport or hang the welder. When out of work, place it on the stand included in the set.

NOTICE

Due to varying tolerances of pipes and fittings by other manufacturers, to ensure the execution of a sealed and durable joint, we suggest the use of original tools, particularly heating inserts, as offered within the KAN-therm PP Green system.

Tools – work safety

All tools must be used according to their dedication and the manufacturer's instruction manual. During the use of tools, one must observe the terms of regular inspections and all applicable safety regulations. Using tools against their designed use may lead to their damage or to the damage of their accessories. It may also lead to the occurrence of leakages in installation joints.

Preparation of elements for welding

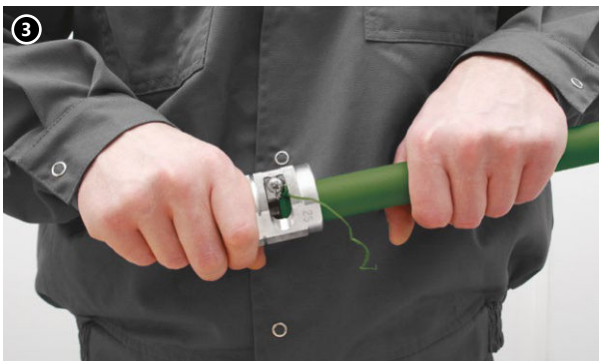


1. Cutting the pipe.

Use a pipe cutter, (or for bigger diameters) a round pipe cutter or a mechanic saw with a blade adapted to cutting polypropylene to cut the pipe. When cutting the pipe with a saw, remove all remainings from the surface and from the interior of the pipe.

2. Marking the depth of the weld.

Mark (using a ruler or, a template and a pencil) the depth of the weld at the end of the pipe (PPR and stabiGLASS PPR pipes). Insufficient welding depth may weaken the joint. On the other hand, if the pipe is mounted too deep, it may become narrower (flange). The depths of welds are provided in the table.



3. Removing Al foil

In the case of stabiAL PPR pipes, before welding, remove the layer of aluminum using a scraper (together with the PP protective shield and binding layers). Slide the end of the Stabi pipe into the hole of the scraper and, applying rotary motion, scrape off the layer of aluminum until the scraper ceases to produce chips. The length of the section with the foil removed signals the depth of the weld, hence there is no need to mark it, as in point 2.

Always check for aluminum or binding layer (adhesive) remains on the surface. Scraper blades must not be blunt or chipped. Replace used blades with new, spare ones.

1.6 Welding technique

General requirements for welding

Only the products coming from the same manufacturer can be welded together. Pipes and fittings should be heated simultaneously and not more than once. All operations during a welding process shall be performed without turning a pipe against a fitting and welding ends. It should be taken into account that welding time differs depending on elements' diameters. Welding below 0 °C should be avoided. Double, even flow-out on the whole weld surface indicates a good quality of a joint. In case of stabIAL pipes it is essential to make sure that an aluminum foil has been removed.

Socket fusion welding



4. Heating the pipe and the joint.

The surfaces to be heated must be clean and dry. Slide the pipe end (without rotation) into the heating sleeve, up to the marked depth of the weld. At the same time, slide the fitting (also without rotation) on the heating rod, until it stops. Start counting the heating time when the pipe and the fitting are mounted at their entire welding depths. After the lapse of a half of the heating time (according to the table), continue to heat the fitting and start heating the pipe, until the end of required heating time.

5. Connecting elements.

After heating take the pipe and fitting out of heating inserts in a continuous manner and immediately, without rotating, connect them. The marked welding border should then be covered by outflowing excess material. Do not heat beyond the marked welding border, since it could result in a narrowing or even a clog in the joint. When connecting elements, the joint can be slightly adjusted on the axis (up to a few degrees). Rotating elements being connected is absolutely prohibited.



6. Stabilizing and cooling.

After the welding time has lapsed, the joint must be stabilized and cooling must be initiated (time of cooling is provided in the table). In this period, you must not apply any mechanic pressure on the pipe. After all joints have cooled down, connect the installation to water supply and conduct a pressure test.

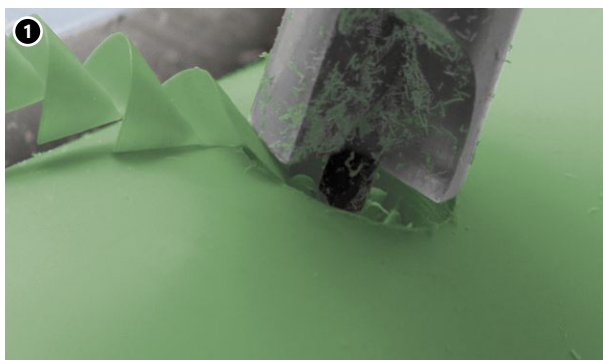
Tab. 8. Socket fusion welding parameters

External pipe diameter [mm]	Welding depth [mm]	Heating time [sek]	Binding time [sek]	Cooling time [min]
16	13,0	5	4	2
20	14,0	5	4	2
25	15,0	7	4	2
32	16,0	8	6	4
40	18,0	12	6	4
50	20,0	18	6	4
63	24,0	24	8	6
75	26,0	30	10	8
90	29,0	40	10	8
110	32,5	50	10	8

! Notice

The time of heating in ambient temperatures below +5 °C should be increased by 50%.

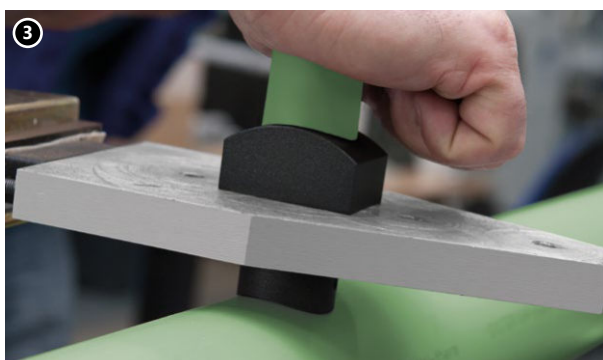
Installation of pipe saddle fittings PP Green



1. Drilling a hole under the pipe saddle fitting.



2. Processing the hole – removing the burrs made when drilling.



3. Welding the pipe saddle fitting.



4. Ready connection.

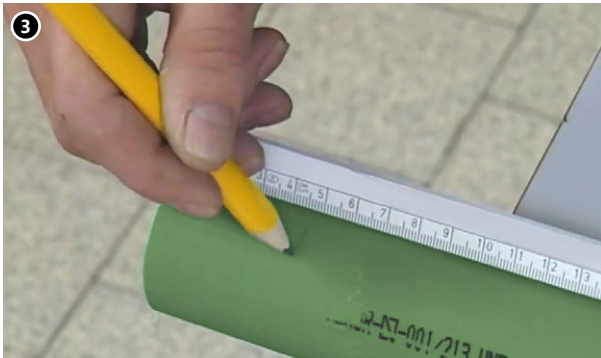
Connection technique - electrofusion welding (20-200 mm)



1. Pipe surface scraping.



2. Cleaning pipe surface with alcohol.



3. Insertion depth marking.



4. Insertion of pipe into the fitting.



5. Programming of welding machine via laser reader (welding machine will adjust parameters automatically).



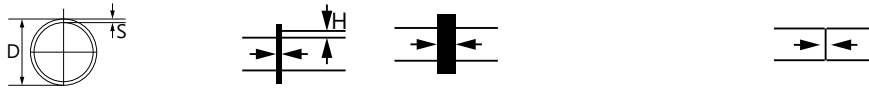
6. Welding process start - do not rotate or mechanically stress the elements through all of welding and cooling process.

Tab. 9. Electrofusion welding parameters

External pipe diameter	R (23 °C)	RMS	Welding time	Cooling time
[mm]	[Ohm]	[Volt]	[sek]	[min]
20	0,76	11	65	10
25	0,76	13	55	10
32	1,25	20	55	10
40	1,9	24	105	10
50	1,41	24	150	15
63	0,85	24	145	15
75	0,79	24	165	20
90	0,76	24	210	20
110	0,57	24	250	20
125	1,16	40	180	20
160	0,84	40	270	30
200	0,56	40	270	30

Connections technique - butt-welding (90 – 200 mm)

Tab. 10. Butt-welding welding parameters



External pipe diameter	Outflow height	Welding time	Outflow width	Cooling time <15°C	Cooling time 15-25°C	Cooling time 25-40°C
[mm]	[mm]	[s]	[mm]	[min]	[min]	[min]
90	1	138	10±15 mm	10	13	16
110	1	166	10±15 mm	12	15	20
125	1	155	10±15 mm	11	14	18
160	1	161	10±15 mm	12	15	20
200	1	198	10±15 mm	14	18	24

1. Placing the pipe in butt-welding machine.
2. Determining the correct pipe-pipe and pipe-fitting position.
3. Checking the parallelism of the ends by positioning elements together.
4. Milling the welding surfaces – 3 continuous coils of cut material requested.
5. Purging the welding surfaces.
6. Welding – outflows and welding time acc. to table.
7. Cooling down – cooling time acc. to table.

Thread sealing

It is advised to seal threaded connections with such an amount of hemp, that leaves the thread tops not covered. Using too much hemp may lead to thread damage. By winding hemp just after the first thread ridge you can avoid skew screwing and damaging the thread.



CAUTION! Do not use chemical sealants or glues.

1.7 Fittings with metal threads and collars

Apart from welded joints, KAN-therm PP Green offers threaded and collar joints.



KAN-therm PP Green fittings with brass threads

The most basic elements with metal threads are PP-R polypropylene fittings (couplings, elbows, tees) with brass "inserts" with male and female threads. They form inseparable joints. Unscrewing a joint like this requires the pipe to be cut off. Such joints are used for connecting installations to heating and water supply devices and fixtures. Joints with 1" and bigger female and male threads are equipped with a six-sided mount for a flat wrench, allowing devices to be screwed-in and – out without applying excessive pressure on the weld and the fitting itself.

The group of detachable joints, allowing performance of multiple, exchangeable connections, includes KAN-therm PP Green union adapters (used e.g. to connect water meters) and "half unions" with specially formed stubs (for mounting rubber seals) and metal nuts.

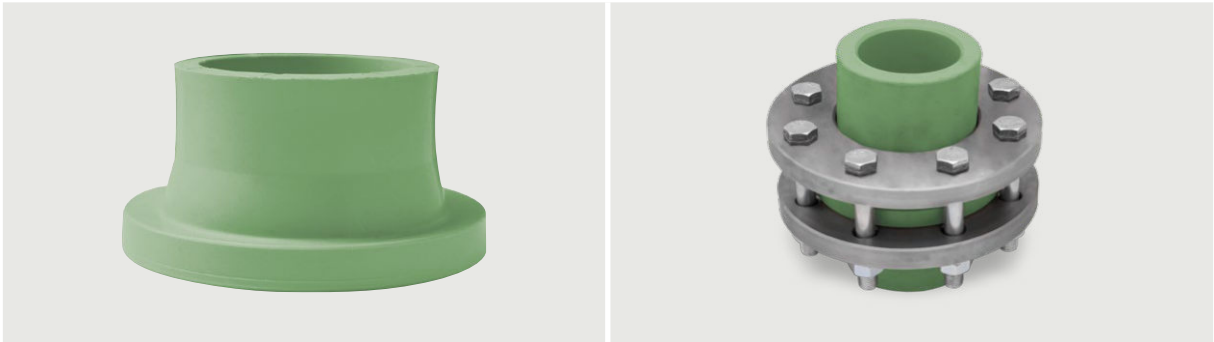


KAN-therm PP Green detachable fittings – male union adapter, female union adapter, half-union and union

KAN-therm PP Green also offers double union adapters (with two PP-R couplings) which allow mounting flanges on the pipe. An additional coupling with internal diameter corresponding to the external diameter of the pipe is required to connect these joints with the pipe.

For large pipe diameters, use flange couplings to execute detachable joints. Flange couplings are used e.g. to connect devices to flange stubs (pumps, valves, water meters). In installations, KAN-therm PP Green adapters are used with loose flanges.

It is necessary to assemble a separate, flat seal. The seal should be made of a material type suitable for the parameters of the medium running through the joint. The connection between flange adapter and pipe is done with a utilization of muff coupling or by other fitting.

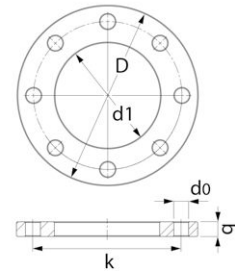


Ø110 mm flange joint

Flanges

Sleeve size	DN	D	d1	k	d0	q	N
Ø40	32	140	43	100	18	18	4
Ø50	40	150	53	110	18	18	4
Ø63	50	165	66	125	18	20	4
Ø75	65	185	78	145	18	20	8
Ø90	80	200	95	160	18	20	8
Ø110	100	220	114	180	18	22	8

N - number of bolt holes



1.8 Transport, storage and handling



Components of plastic piping systems must be protected against impact, falling, blow or any other mechanical damage during their transport and installation.

Store and transport pipes in horizontal position, preventing them from bending.

Maximum storage height – 1,2 m. Be extra careful when transporting or carrying pipes in temperatures below 0 °C (in these conditions pipes are more vulnerable to mechanic damages, especially stabiGLASS PPR pipes).



Protect pipes against shocks or mechanic impacts, particularly their endings.

Do not throw or drag pipes during transport.

Only the components that are not damaged or contaminated, during storage or transportation, may be used for installation works.



Protect pipes and fittings against polluting (particularly with oil or grease).

Protect pipes and joints from the access of chemical substances (e.g. paint or organic solvents, steam containing chlorine).



min. +5 °C

A minimum temperature for plastic piping installation, as regards welding, is +5 °C. At lowers temperatures it is difficult to provide working conditions for high quality pipe joints.



Pipeline crossings are made by means of the components specially designed for this purpose.



Joining of plastic parts is done by polyfusion welding which results in a high-quality homogeneous joint.

Joining must be performed under specified working conditions with the use of appropriate tools.

It is not recommended to weld KAN-therm PP Green components together with other brand products (no warranty).



Components must not be exposed to open fire.



During storage, pipes and joints must not be exposed to sun rays (they must be protected against heat and UV rays).



Detailed information about storage and transport of components can be found at en.kan-therm.com.

1.9 Safety

Pipes and fittings in KAN-therm PP Green system holds a set of necessary approvals and comply with current standards and normatives, which ensures long - lasting and trouble - free operation and full security of the installation. KAN-therm runs production in compliance with European EN ISO 15874, German standards DIN 8077, DIN 8078 and DVGW certificate.

- KAN-therm PP Green pipes complies with EN ISO 15874-2:2013 and positive hygienic result, German standards DIN 8077, DIN 8078 and DVGW certificate,
- KAN-therm PP Green fittings and valves complies with EN ISO 15874-3:2013 and positive hygienic result and DVGW certificate.
- System KAN-therm PP Green is granted with 10-years material warranty.
- Pipes and fittings of KAN-therm PP Green system also holds positive opinion of international certification units:





SYSTEM KAN-therm PP Green - assortment

Pipes

Pipe PPR SDR7.4 PN16 - bar

GROUP: L

Size [mm]	*	Code			UM
20×2,8		2029203002	4	160	m
25×3,5		2029203004	4	100	m
32×4,4		2029203006	4	60	m
40×5,5		2029203008	4	40	m
50×6,9		2029203010	4	28	m
63×8,6		2029203012	4	16	m
75×10,3		2029203014	4	12	m
90×12,3		2029203016	4	8	m
110×15,1		2029203000	4	4	m



Note:

Application class 1; 8 bar.
Application class 2; 6 bar.
Application class 4; 10 bar.
Application class 5; 6 bar.



Pipe PPR SDR6 PN20 - bar

GROUP: L

Size [mm]	*	Code			UM
20×3,4		2029206018	4	120	m
25×4,2		2029206020	4	100	m
32×5,4		2029206022	4	60	m
40×6,7		2029206024	4	40	m
50×8,3		2029206026	4	28	m
63×10,5		2029206028	4	16	m
75×12,5		2029206030	4	12	m
90×15,0		2029206032	4	8	m
110×18,3		2029206014	4	4	m



Note:

Application class 1; 10 bar.
Application class 2; 8 bar.
Application class 4; 10 bar.
Application class 5; 6 bar.



Pipe PPR stabiAL SDR6 PN20 - bar

GROUP: M

Size [mm]	*	Code			UM
20×3,4		2029205002	4	100	m
25×4,2		2029205004	4	80	m
32×5,4		2029205006	4	40	m
40×6,7		2029205008	4	28	m
50×8,3		2029205010	4	20	m
63×10,5		2029205012	4	12	m
75×12,5		2029205014	4	8	m
90×15,0		2029205017	4	8	m
110×18,3		2029205016	4	4	m

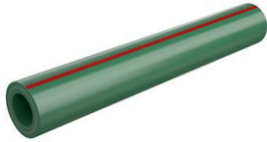
Note:

Application class 1; 10 bar.
Application class 2; 8 bar.
Application class 4; 10 bar.
Application class 5; 6 bar.





 coil  bar  pipes in tube  bag  carton box  pallet **N** new **!** available soon

* custom-made - lead time max 4 weeks | ** availability as agreed | *** while stock lasts



Pipe PPR stabiGLASS SDR7.4 PN16 - bar

GROUP: M



Size [mm]	*	Code			UM
20×2,8		2029204007	4	200	m
25×3,5		2029204008	4	100	m
32×4,4		2029204009	4	60	m
40×5,5		2029204010	4	40	m
50×6,9		2029204011	4	20	m
63×8,6		2029204012	4	12	m
75×10,3		2029204013	4	8	m
90×12,3		2029204014	4	8	m
110×15,1		2029204006	4	4	m

Note:
 Application class 1; 8 bar.
 Application class 2; 6 bar.
 Application class 4; 10 bar.
 Application class 5; 6 bar.



Pipe PPRCT stabiGLASS SDR9 PN16 - bar

GROUP: M

Size [mm]	*	Code			UM
125×14,0		2029206034	4	4	m

Note:
 Application class 1; 10 bar.
 Application class 2; 8 bar.
 Application class 4; 8 bar.
 Application class 5; 6 bar.



Pipe PPRCT stabiGLASS SDR11 PN16 - bar

GROUP: M



Size [mm]	*	Code			UM
160×14,6		2029206035	4	4	m
200×18,2		2029206093	4	4	m

Note:
 Application class 1; 8 bar.
 Application class 2; 6 bar.
 Application class 4; 6 bar.
 Application class 5; 4 bar.

Connectors

PP/Push saddle

GROUP: N

Size [mm]	*	Code			UM
63 / 18x2,0		2009238035	20	160	pc.
75 / 18x2,0		2009238036	20	160	pc.
90 / 18x2,0		2009238037	20	160	pc.
110 / 18x2,0		2009238038	20	160	pc.



Note:

The external diameter of PP pipe is given to which the saddle is welded, as well as the connection pipe diameter.



Female saddle

GROUP: N

Size [mm]	*	Code			UM
63 Rp½"		2009238024	20	100	pc.
75 Rp½"		2009238025	20	100	pc.
90 Rp½"		2009238026	20	100	pc.
110 Rp½"		2009238018	20	100	pc.


Note:

The external diameter of PP pipe is given to which the saddle is welded, as well as the diameter and type of thread.



Looping compensation

GROUP: N

Size [mm]	*	Code		UM
20		2009036004	20	pc.
25		2009036005	15	pc.
32		2009036008	10	pc.


Note:

Loop diameter Ø150, length 370 mm.



Crossover

GROUP: N



Size [mm]	*	Code		UM
20		2009269001	200	pc.
25		2009269004	130	pc.
32		2009269006	75	pc.





Coupling





GROUP: N

Size [mm]	*	Code			UM
20		2009245007	100	700	pc.
25		2009245009	50	550	pc.
32		2009245011	40	280	pc.
40		2009245013	30	180	pc.
50		2009245015	10	110	pc.
63		2009245017	-	60	pc.
75		2009245019	-	45	pc.
90		2009245021	-	24	pc.
110		2009245002	-	16	pc.
125		2009245004	-	9	pc.



Coupling reducer

GROUP: N



Size [mm]	*	Code			UM
 20 / 25		2009220122	50	550	pc.
 32 / 25		2009220123	40	280	pc.

 coil
  bar
  pipes in tube
  bag
  carton box
  pallet
  new
  available soon

* custom-made - lead time max 4 weeks | ** availability as agreed | *** while stock lasts

Nipple reducer

GROUP: N

Size [mm]	*	Code			UM
25 / 20		2009220015	100	900	pc.
32 / 20		2009220017	80	640	pc.
32 / 25		2009220019	80	560	pc.
40 / 20		2009220021	50	400	pc.
40 / 25		2009220023	50	350	pc.
40 / 32		2009220025	50	300	pc.
50 / 20		2009220120	30	180	pc.
50 / 25		2009220000	30	120	pc.
50 / 32		2009220001	30	180	pc.
50 / 40		2009220027	30	150	pc.
63 / 25		2009220119	-	100	pc.
63 / 32		2009220029	-	100	pc.
63 / 40		2009220031	-	100	pc.
63 / 50		2009220033	-	100	pc.
75 / 50		2009220035	-	80	pc.
75 / 63		2009220037	-	50	pc.
90 / 50		2009220039	-	48	pc.
90 / 63		2009220041	-	45	pc.
90 / 75		2009220043	-	45	pc.
110 / 63		2009220003	-	27	pc.
110 / 75		2009220004	-	27	pc.
110 / 90		2009220005	-	27	pc.
125 / 110		2009220008	-	6	pc.
160 / 110		2009220009	-	2	pc.
160 / 125		2009220010	-	4	pc.
200 / 160		2009220114	-	1	pc.



Note:

Nipple reducers are intended for direct welding into the fitting socket from the bigger diameter side. The smaller diameter is intended for direct connection with the pipe.



Female connector

GROUP: N

Size [mm]	*	Code			UM
20 Rp $\frac{1}{2}$ "		2009245028	20	180	pc.
20 Rp $\frac{3}{4}$ "		2009245030	30	150	pc.
25 Rp $\frac{1}{2}$ "		2009245032	20	160	pc.
25 Rp $\frac{3}{4}$ "		2009245034	30	150	pc.
25 Rp1"		2009245207	-	100	pc.
32 Rp $\frac{3}{4}$ "		2009245038	20	60	pc.
32 Rp1"		2009245036	20	60	pc.
40 Rp1 $\frac{1}{4}$ "		2009245039	-	60	pc.
50 Rp1 $\frac{1}{2}$ "		2009245041	-	35	pc.
63 Rp2"		2009245043	-	18	pc.
75 Rp2 $\frac{1}{2}$ "		2009245045	-	12	pc.
90 Rp3"		2009245047	-	8	pc.

Note:

Elements with 1" thread and bigger have a polygon for a wrench.





Male connector

GROUP: N

Size [mm]	*	Code			UM
20 R1/2"		2009245056	20	160	pc.
20 R3/4"		2009245058	30	120	pc.
25 R1/2"		2009245060	20	140	pc.
25 R3/4"		2009245062	20	100	pc.
25 R1"		2009245201	-	80	pc.
32 R1"		2009245064	20	60	pc.
32 R1 1/4"		2009245202	-	50	pc.
40 R1 1/4"		2009245067	-	50	pc.
50 R1 1/2"		2009245069	-	36	pc.
63 R2"		2009245071	-	18	pc.
75 R2 1/2"		2009245073	-	10	pc.
90 R3"		2009245075	-	6	pc.

Note:

Elements with 1" thread and bigger have a polygon for a wrench.



Elbow 90°

GROUP: N

Size [mm]	*	Code			UM
20		2009068027	100	500	pc.
25		2009068029	50	350	pc.
32		2009068031	50	200	pc.
40		2009068033	20	120	pc.
50		2009068035	10	60	pc.
63		2009068037	-	32	pc.
75		2009068039	-	20	pc.
90		2009068041	-	12	pc.
110		2009068023	-	8	pc.
125		2009068021	-	1	pc.
160		2009068022	-	2	pc.
200		2009068215	-	1	pc.





Nipple elbow 90°

GROUP: N

Size [mm]	*	Code			UM
20		2009068080	100	600	pc.
25		2009068081	50	400	pc.
32		2009068075	50	200	pc.

Elbow 45°

GROUP: N

Size [mm]	*	Code			UM
20		2009068005	100	700	pc.
25		2009068007	50	400	pc.
32		2009068009	40	200	pc.
40		2009068011	20	140	pc.
50		2009068013	-	80	pc.
63		2009068015	-	40	pc.
75		2009068017	-	25	pc.
90		2009068019	-	14	pc.
110		2009068000	-	10	pc.
125		2009068001	-	4	pc.
160		2009068002	-	2	pc.
200		2009068214	-	1	pc.



Nipple elbow 45°



GROUP: N

Size [mm]	*	Code			UM
20		2009068073	100	700	pc.
25		2009068074	50	450	pc.

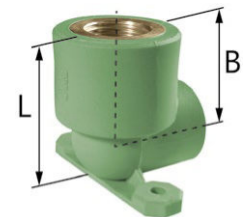


Female directly fixed wallplate elbow - L = 45 mm

GROUP: N


Size [mm]	*	Code			UM
20 Rp $\frac{1}{2}$ "		2009068085	20	140	pc.

Note:
B = 29 mm.

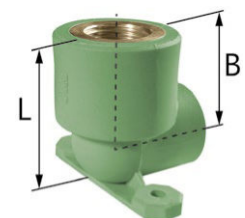


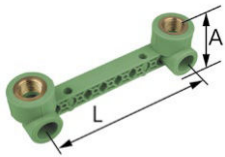
Female directly fixed wallplate elbow - L = 57 mm

GROUP: N

Size [mm]	*	Code			UM
25 Rp $\frac{1}{2}$ "		2009068086	20	120	pc.

Note:
B = 36 mm.





PP-R double female directly fixed wallplate elbow 90° - L = 148,5 mm

GROUP: N

Size [mm]	*	Code			UM
N 20 Rp½"		2009285000	1	30	pc.
N 25 Rp½"		2009285001	1	30	pc.

Note:
20 Rp½" A = 45,5 mm
25 Rp½" A = 50,7 mm



Male elbow 90°

GROUP: N

Size [mm]	*	Code			UM
20 R½"		2009068058	30	90	pc.
20 R¾"		2009068060	30	90	pc.
25 R½"		2009068062	20	120	pc.
25 R¾"		2009068064	30	90	pc.
32 R¾"		2009068067	30	60	pc.
32 R1"		2009068066	15	45	pc.

Note:
A fitting with 1" thread and bigger has a polygon for a wrench.



Female elbow 90°

GROUP: N

Size [mm]	*	Code			UM
20 Rp½"		2009068045	20	140	pc.
20 Rp¾"		2009068047	30	120	pc.
25 Rp½"		2009068049	30	120	pc.
25 Rp¾"		2009068051	30	120	pc.
32 Rp¾"		2009068054	30	90	pc.
32 Rp1"		2009068053	15	45	pc.

Note:
A fitting with 1" thread and bigger has a polygon for a wrench.





Tee

GROUP: N

Size [mm]	*	Code			UM
20		2009257006	80	400	pc.
25		2009257008	20	240	pc.
32		2009257010	20	140	pc.
40		2009257012	15	75	pc.
50		2009257014	5	30	pc.
63		2009257016	-	24	pc.
75		2009257018	-	15	pc.
90		2009257020	-	10	pc.
110		2009257000	-	6	pc.
125		2009257002	-	1	pc.
160		2009257005	-	1	pc.
200		2009257096	-	1	pc.

Reducing tee



GROUP: N

Size [mm]	*	Code			UM
25 / 20 / 20		2009260013	20	200	pc.
25 / 25 / 20		2009260016	20	200	pc.
25 / 20 / 25		2009260000	20	240	pc.
32 / 20 / 20		2009260021	20	200	pc.
32 / 20 / 32		2009260022	20	140	pc.
32 / 25 / 25		2009260024	20	140	pc.
32 / 25 / 32		2009260025	20	140	pc.
40 / 20 / 40		2009260028	20	80	pc.
40 / 25 / 40		2009260029	15	90	pc.
40 / 32 / 40		2009260031	15	90	pc.
50 / 20 / 50		2009260034	-	60	pc.
50 / 25 / 50		2009260035	-	65	pc.
50 / 32 / 50		2009260036	-	60	pc.
50 / 40 / 50		2009260039	-	50	pc.
63 / 25 / 63		2009260040	-	24	pc.
63 / 32 / 63		2009260042	-	30	pc.
63 / 40 / 63		2009260044	-	22	pc.
63 / 50 / 63		2009260046	-	22	pc.
75 / 40 / 75		2009260002	-	17	pc.
75 / 50 / 75		2009260139	-	16	pc.
75 / 63 / 75		2009260140	-	16	pc.
90 / 50 / 90		2009260049	-	12	pc.
90 / 63 / 90		2009260051	-	10	pc.
90 / 75 / 90		2009260053	-	12	pc.
110 / 63 / 110		2009260003	-	8	pc.
110 / 75 / 110		2009260143	-	8	pc.
110 / 90 / 110		2009260141	-	8	pc.
125 / 110 / 125		2009260004	-	3	pc.
160 / 90 / 160		2009260008	-	1	pc.
160 / 110 / 160		2009260007	-	1	pc.
200 / 90 / 200		2009257097	-	1	pc.
200 / 110 / 200		2009257098	-	1	pc.
200 / 125 / 200		2009257099	-	1	pc.
200 / 160 / 200		2009257100	-	1	pc.



Side outlet tee

GROUP: N

Size [mm]	*	Code			UM
20		2009257037	40	360	pc.



Cross

GROUP: N

Size [mm]	*	Code			UM
20		2009057002	40	320	pc.
25		2009057007	20	140	pc.



 coil
  bar
  pipes in tube
  bag
  carton box
  pallet
  new
  available soon

* custom-made - lead time max 4 weeks | ** availability as agreed | *** while stock lasts



Male tee

GROUP: N

Size [mm]	*	Code			UM
20 Rp $\frac{1}{2}$ "		2009257035	20	120	pc.
N 25 Rp $\frac{1}{2}$ "		2009257108	30	90	pc.
N 25 Rp $\frac{3}{4}$ "		2009257111	30	90	pc.



Female tee

GROUP: N

Size [mm]	*	Code			UM
20 Rp $\frac{1}{2}$ "		2009257024	20	120	pc.
20 Rp $\frac{3}{4}$ "		2009257026	30	90	pc.
25 Rp $\frac{1}{2}$ "		2009257028	20	180	pc.
25 Rp $\frac{3}{4}$ "		2009257030	30	180	pc.
32 Rp $\frac{3}{4}$ "		2009257033	15	60	pc.
32 Rp1"		2009257032	15	60	pc.

Note:
An element with 1" thread has a polygon for a wrench.



Union

GROUP: N

Size [mm]	*	Code			UM
20 G $\frac{3}{4}$ "		2009065000	20	200	pc.



Female half union with flat sealing

GROUP: N

Size [mm]	*	Code			UM
20 G $\frac{3}{4}$ "		2009105002	50	400	pc.
25 G1"		2009105004	20	100	pc.
N 32 G1 $\frac{1}{4}$ "		2009105013	10	100	pc.



Female half union with flat sealing

GROUP: N

Size [mm]	*	Code			UM
20 Rp $\frac{1}{2}$ "		2009271041	20	200	pc.
20 Rp $\frac{3}{4}$ "		2009271042	20	200	pc.
25 Rp $\frac{3}{4}$ "		2009271043	20	200	pc.



Female union

GROUP: N

Size [mm]	*	Code			UM
N 20 G $\frac{1}{2}$ "		2009271052	20	200	pc.
N 25 G $\frac{3}{4}$ "		2009271055	20	100	pc.
N 32 G1"		2009271058	20	80	pc.

coil bar pipes in tube bag carton box pallet **N** new available soon

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Male union



GROUP: N

Size [mm]	*	Code			UM
20 G½"		2009271002	20	200	pc.
20 G¾"		2009271004	20	200	pc.
25 G¾"		2009271008	20	100	pc.
25 G1"		2009271006	20	100	pc.
32 G1"		2009271010	20	60	pc.



Flange adapter

GROUP: N

Size [mm]	*	Code			UM
40		2009091012	1	40	pc.
50		2009091013	1	30	pc.
63		2009091014	1	20	pc.
75		2009091015	1	15	pc.
90		2009091016	1	10	pc.
110		2009091011	1	6	pc.
125		2009245079	-	2	pc.
160		2009245080	-	2	pc.
200		2009245209	-	1	pc.




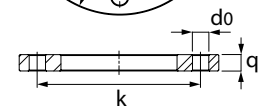
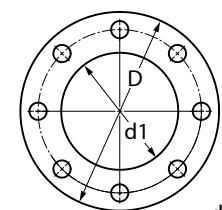
Note:

The flange adapter is delivered with an EPDM seal.

Steel flange PN16

GROUP: N

Size [mm]	*	Code		UM
40		1209091002	1	pc.
50		1209091003	1	pc.
63		1209091004	1	pc.
75		1209091005	1	pc.
90		1209091006	1	pc.
110		1209091001	1	pc.
125		2009091000	1	pc.
160		2009091001	1	pc.
200		2009025056	1	pc.



Code	DN	D	d1	k	d0	q	N
1209091002	32	140	43	100	18	18	4
1209091003	40	150	53	110	18	18	4
1209091004	50	165	66	125	18	20	4
1209091005	65	185	78	145	18	20	8
1209091006	80	200	95	160	18	20	8
1209091001	100	220	114	180	18	22	8
2009091000	100	220	135	180	18	18	8
2009091001	150	285	178	240	22	24	8
2009025056	200	340	235	295	22	24	8

 coil  bar  pipes in tube  bag  carton box  pallet **N** new  available soon

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Bend 90°

GROUP: N

Size [mm]	*	Code			UM
20		2009011002	30	300	pc.
25		2009011000	20	180	pc.
32		2009011001	15	180	pc.



Electrofusion coupling

GROUP: N

Size [mm]	*	Code			UM
20		2009088005	20	120	pc.
25		2009088006	20	120	pc.
32		2009088007	20	120	pc.
40		2009088008	10	30	pc.
50		2009088001	5	20	pc.
63		2009088002	5	15	pc.
75		2009088003	4	8	pc.
90		2009088004	2	8	pc.
110		2009088000	1	4	pc.
125		2009245001	-	1	pc.
160		2009245000	-	1	pc.
200		2009088036	-	1	pc.



Stop end

GROUP: N

Size [mm]	*	Code			UM
20		2009025006	200	1000	pc.
25		2009025008	100	700	pc.
32		2009025010	50	500	pc.
40		2009025012	50	250	pc.
50		2009025014	-	170	pc.
63		2009025016	-	80	pc.
75		2009025018	-	50	pc.
90		2009025020	-	30	pc.
110		2009025000	-	20	pc.
125		2009025002	-	10	pc.
160		2009025005	-	8	pc.
200		2009025055	-	1	pc.



Ball valve

GROUP: N

Size [mm]	*	Code			UM
20		2009278001	10	90	pc.
25		2009278002	10	50	pc.
32		2009278003	5	25	pc.
40		2009278005	5	15	pc.
50		2009278006	2	10	pc.
63		2009277002	2	8	pc.
75		2009277003	1	5	pc.

coil bar pipes in tube bag carton box pallet **N** new available soon

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Globe valve



GROUP: N

Size [mm]	*	Code			UM
20		2009280006	1	30	pc.
25		2009280008	1	30	pc.
32		2009280010	1	30	pc.



Concealed globe valve with a knob

GROUP: N

Size [mm]	*	Code			UM
20		2009280000	1	30	pc.
25		2009280002	1	40	pc.
32		2009280004	1	20	pc.
40		2009277004	5	15	pc.
63		2009277005	1	20	pc.


Note:

The valves are delivered in a set with two plastic clips to mark hot (red) or cold (blue) water.



Concealed globe valve with masking

GROUP: N

Size [mm]	*	Code			UM
20		2009280015	1	30	pc.
25		2009280016	1	30	pc.
32		2009280017	1	30	pc.



Accessories



Pipe clip

GROUP: N

Size [mm]	*	Code			UM
20		2009107025	20	800	pc.
25		2009107026	20	700	pc.
32		2009107027	20	440	pc.
40		2009107028	20	300	pc.
50		2009107030	20	240	pc.
63		2009107031	20	120	pc.
75		2009107032	20	100	pc.
90		2009107033	10	60	pc.

Note:
Use only as sliding points.



Single pipe clamp with rubber insert

GROUP: A

Size [mm]	*	Code		UM
20-23		1700081028	100	pc.
25-28		1700081029	100	pc.
32-36		1700081030	50	pc.
40-44		1700081031	50	pc.
47-52		1700081032	50	pc.
57-63		1700081034	50	pc.
74-78		1700081035	25	pc.
85-91		1700081036	25	pc.
108-112		1700081023	25	pc.
125		2009107075	20	pc.
160		2009107076	10	pc.
200		2009107077	10	pc.

Note:
The clamp has a double-threaded screw with a collar (8x70) a plastic dowel (Ø12) in the set.



Double pipe clamp with rubber insert

GROUP: A

Size [mm]	*	Code		UM
20-23		1700081020	50	pc.
25-28		1700081021	50	pc.
32-36		1700081022	50	pc.

Note:
The clamp has a double-threaded screw with a collar (8x70) a plastic dowel (Ø12) in the set.



Mounting plate

GROUP: N

Size [mm]	*	Code			UM
L = 150		2009210000	30	150	pc.

Mounting plate 150 mm - plate total length 215 mm, width 64 mm, depth 6 mm.


coil bar pipes in tube bag carton box pallet **N** new available soon

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Tools

Scraper for stabiAL pipes


GROUP: K

Size [mm]	*	Code		UM
20 / 25		1933267043	1	pc.
25 / 32		1933267045	1	pc.
32 / 40		1933267047	1	pc.
50		1933267049	1	pc.
63		1933267051	1	pc.
75		1933267053	1	pc.
90		1933267055	1	pc.
110		1933267039	1	pc.



Blade for stabiAL pipe scraper

GROUP: K

	*	Code		UM
	*	1933267035	1	pc.



Cutter for pipes


GROUP: K

Range [mm]	*	Code		UM
20-40		1933267029	1	pc.



Roll-cutter for PP pipes


GROUP: K

Range [mm]	*	Code		UM
50-110		1933267032	1	pc.



Pipe cutting machine

GROUP: K

Range [mm]	*	Code		UM
50-200		1948267034	1	pc.

Note:
The set does not include a cutting wheel.



Pipe support for cutting machine

GROUP: K

	*	Code		UM
		1948267029	1	pc.



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Wheel for cutting machine


GROUP: K

Range [mm]	*	Code		UM
125-200		1933267072	1	pc.



Stationery welding machine

GROUP: K

Range [mm], power [W]	*	Code		UM
63-110, 1600		1933267036	1	pc.

Each set includes:

- welding device PZ-125,
- welding machine 1600 W,
- 1933345003 - jaws PZ-125 for 63 mm pipes,
- 1933345002 - jaws PZ-125 for 75 mm pipes,
- 1933345001 - jaws PZ-125 for 90 mm pipes,
- 1933345000 - jaws PZ-125 for 110 mm pipes,
- case.

Note:

The set does not include heating sockets!



Electrofusion welding machine

GROUP: K

Range [mm], power [W]	*	Code		UM
20-200, 3000		1933267071	1	pc.



Butt-welding machine

GROUP: K

Range [mm], power [W]	*	Code		UM
90-200, 2200		1933267073	1	pc.



KAN-therm welding set

GROUP: K

Range [mm], power [W]	*	Code		UM
N 20-50, 800		1933267078	1	pc.
N 63-125, 1600		1933267079	1	pc.

Each set includes:


- Electric welding machine 800 W or 1600 W
- Rack for the welding machine
- Bolt for fastening heating sockets
- Metal case
- Set of heating inserts 16-50 mm or 63-110 mm

Note:

The set does not include heating sockets for saddle fittings!

Welding device RITMO PRISMA JIG

GROUP: K


Range [mm]	*	Code		UM
63-125		1933267081	1	pc.

Note:
Tool is sold in set with case.



Welding device SPIDER 125 McElroy

GROUP: K


Range [mm]	*	Code		UM
63-125		1933267082	1	pc.

Note:
Tool is sold in set with case.



Screw for welding machine

GROUP: K


	*	Code		UM
		1933267037	1	pc.

Note:
Bolt for heating sockets - service part.



Heating sockets for saddle fittings

GROUP: K


Size [mm]	*	Code		UM
40		1933267004	1	pc.
50		1933267005	1	pc.
63		1933267006	1	pc.
75		1933267007	1	pc.
90		1933267008	1	pc.
110		1933267002	1	pc.

Note:
The set includes a female and male socket and a mounting bolt (Allen).
Heating sockets for saddle fittings are not included in heating sets (1933267078, 1933267079).



Drill bit for mounting saddle fittings

GROUP: K


Size [mm]	*	Code		UM
25		1933267038	1	pc.





Reamer for pipe stabIAL for mounting saddle fittings


GROUP: K

Size [mm]	*	Code		UM
25		1933267074	1	pc.



Heating sockets

GROUP: K

Size [mm]	*	Code		UM
20		1933267013	1	pc.
25		1933267015	1	pc.
32		1933267017	1	pc.
40		1933267019	1	pc.
50		1933267021	1	pc.
63		1933267023	1	pc.
75		1933267025	1	pc.
90		1933267027	1	pc.
110		1933267009	1	pc.

 coil
  bar
  pipes in tube
  bag
  carton box
  pallet
  new
  available soon

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KAN-therm MULTISYSTEM

Complete multipurpose installation system consisting of state-of-the-art, mutually complementary technical solutions for pipe water distribution installations, heating and cooling installations, as well as technological installations.

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**Surface heating and cooling,
automation**

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