



Underfloor Heating Systems

2023

Product Catalogue

Company Profile and History

KAYALAR GROUP

KAS was founded in 1970 and started its activities with the production of brass made parts & fittings. The name **KAS**, which was registered as a brand in 1994, was added to the radiator valves & unions product range in the same year.

Milestone of Kas:

In 2004, the **Kayalar Group** launched the Corrugated Stainless-Steel Hoses, the PPR Pipe & Fittings, and faucets to offer the worldwide and local market. **KAS** never gave up the target of continuous growth; however, it's proud to say that in a 35.000 m² facility with 22.000 m² indoor area where a professional team and an experienced R&D Department work on improvements and new products today.

Perspective of Kas:

The Kayalar Group offers its customers more than 2.000 types and more than 300 groups of products for natural gas, fire installations, connections, construction, and industrial markets. The product quality is assured and certified according to standards such as **CE, EN, TSE, TS, TSEK, GOST and ISO 9001**.

KAS has a production experience of more than half a century and is capable to produce any products that are suitable with today's management and change management techniques. **KAS** has become the most experienced and quality brand in Turkey and all over the world. The quality, reliability, ergonomics, and easy usage of its products determine the difference of **Kayalar Group** against its competitors.

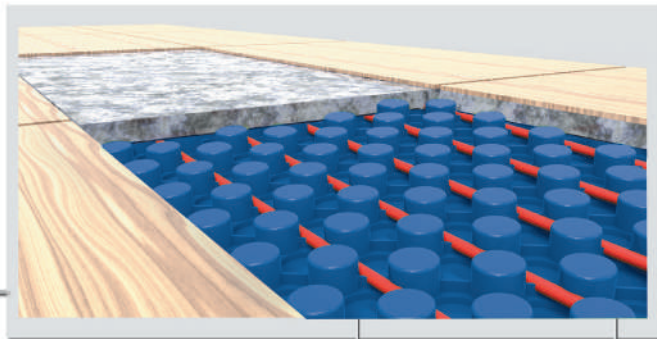
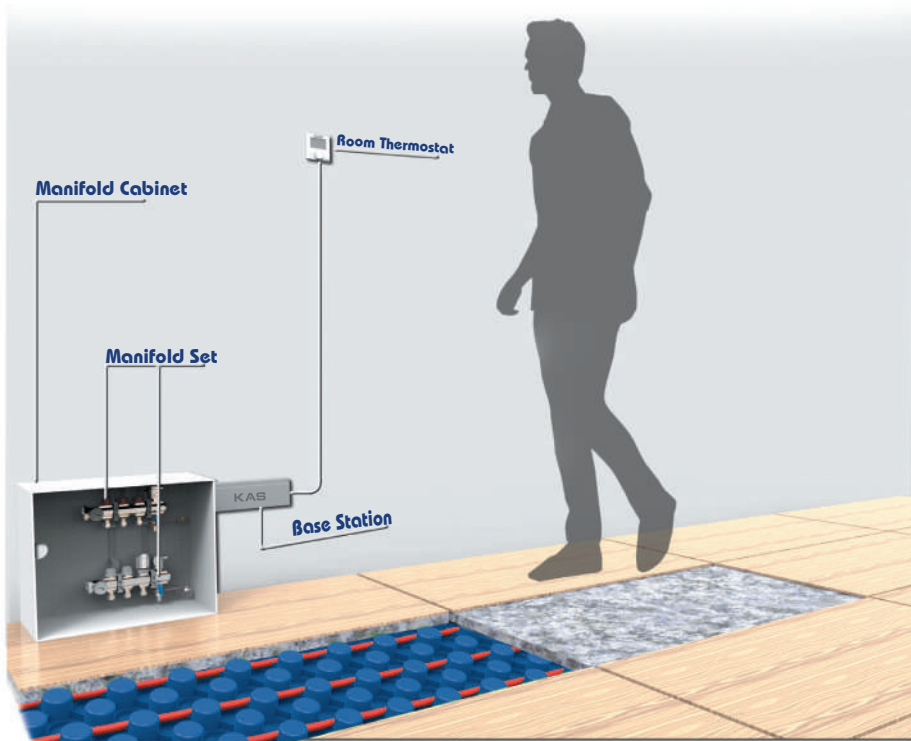
Kayalar Group Company cares about the collaborator's by providing full support within periodical educational meetings. It shows a deep interest not only business life, but also pays a great attention for the social and educational life and supports social community services and educational associations for growing young brains.

Today's Kas:

The Kayalar Group currently exports to over 74 countries and serves many customers by providing full support and CRM techniques. Our target is to transform the **KAS** Brand into a global brand that is known for its product quality.

Quality Certificates





Underfloor Heating Styrofoam

Pe-RT Pipe

for more information

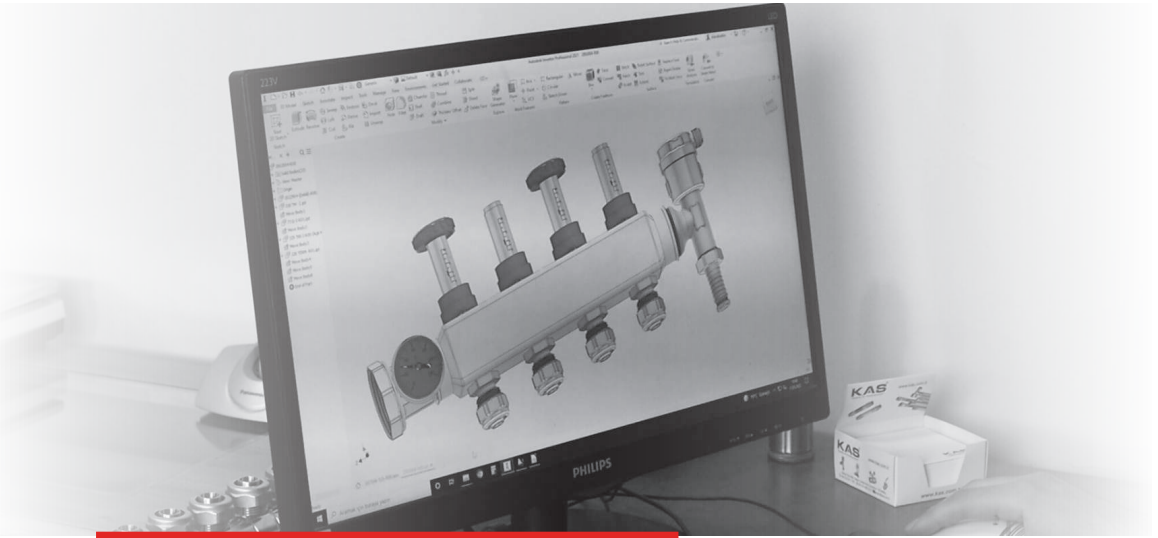




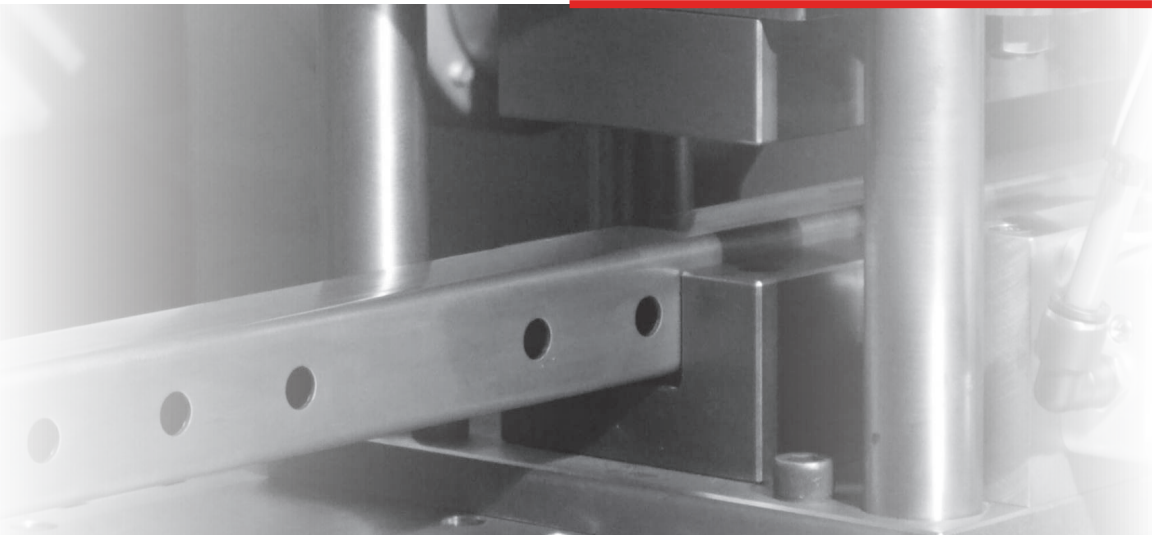
Manifold & Underfloor

Heating 

WHAT ARE THE BENEFITS OF

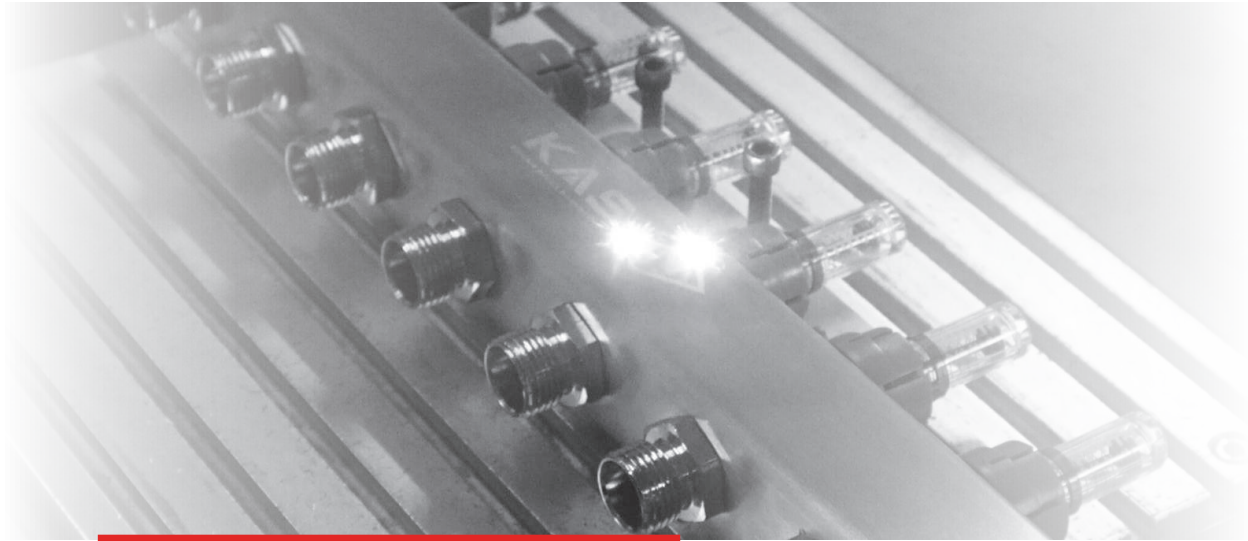


Underfloor heating can be an efficient and effective way to heat a space, as it can provide a consistent level of warmth throughout the room and can be easily controlled using a thermostat.



When it comes to underfloor heating systems electric and hydronic are the two main options. Electric underfloor heating systems use electric cables or mats that are laid under the floor to generate heat, while hydronic systems use hot water circulated through pipes laid under the floor.

OF UNDERFLOOR HEATING?



You can review the article **What is underfloor heating system**, which is more comprehensive on this subject.

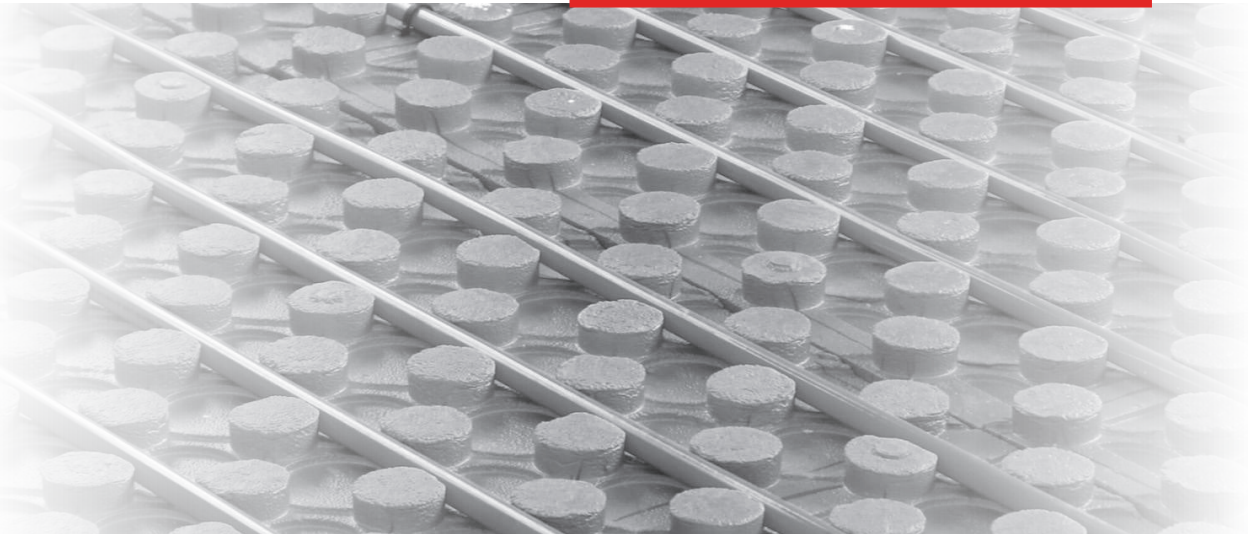


Underfloor heating can be used in a variety of settings, including homes, offices, and commercial buildings.

ENERGY EFFICIENCY - COMFORT - FL



Underfloor heating systems can be more energy-efficient than other types of heating systems, as they use lower operating temperatures to heat a space.

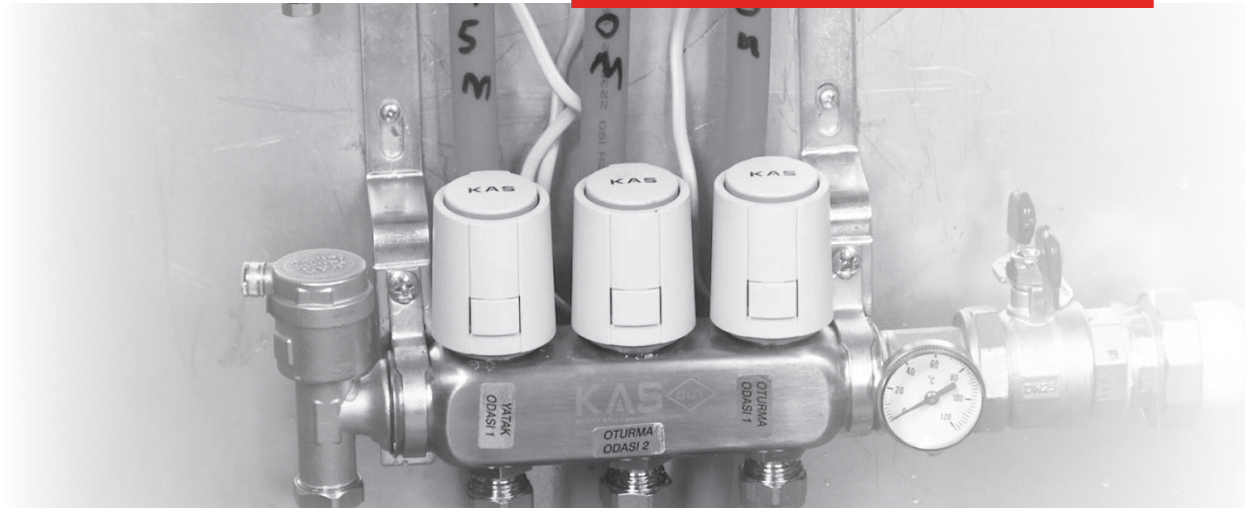


Underfloor heating provides a more consistent level of warmth throughout a room, as it heats from the ground up rather than from the air. This can make the space feel more comfortable and eliminate cold spots.

LEXIBILITY - IMPROVED AIR QUALITY

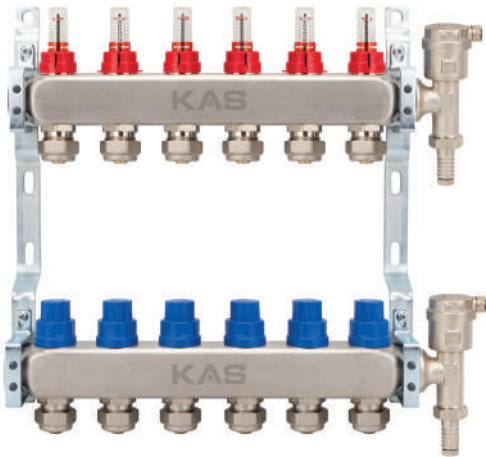


Underfloor heating can be easily controlled using a thermostat, allowing you to adjust the temperature to your desired level of comfort. It can also be easily integrated into a home automation system for added convenience.



Underfloor heating systems do not rely on forced air circulation, which can dry out the air and circulate dust and other allergens

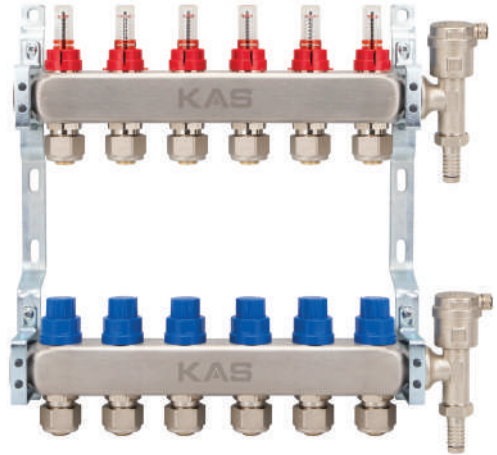
▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



new product

16x2 Eurocone Connection Stainless Steel Manifold Set with Flow Meter

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.81.902	2	1	2,063
18.81.903	3	1	2,563
18.81.904	4	1	3,063
18.81.905	5	1	3,573
18.81.906	6	1	4,075
18.81.907	7	1	4,574
18.81.908	8	1	5,074
18.81.909	9	1	5,575
18.81.910	10	1	6,076
18.81.911	11	1	6,575
18.81.912	12	1	7,075

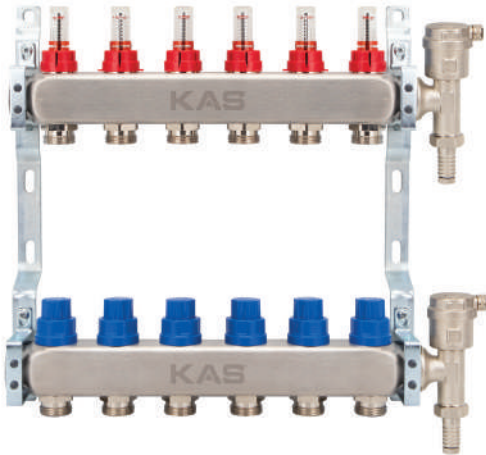


new product

20x2 Eurocone Connection Stainless Steel Manifold Set with Flow Meter

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.83.902	2	1	2,155
18.83.903	3	1	2,703
18.83.904	4	1	3,252
18.83.905	5	1	3,800
18.83.906	6	1	4,347
18.83.907	7	1	4,895
18.83.908	8	1	5,442
18.83.909	9	1	5,991
18.83.910	10	1	6,538
18.83.911	11	1	7,087
18.83.912	12	1	7,635

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



new product

3/4 Eurocone Connection Stainless Steel Manifold Set with Flow Meter

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.84.902	2	1	1,844
18.84.903	3	1	2,231
18.84.904	4	1	2,618
18.84.905	5	1	3,005
18.84.906	6	1	3,392
18.84.907	7	1	3,779
18.84.908	8	1	4,166
18.84.909	9	1	4,463
18.84.910	10	1	4,940
18.84.911	11	1	5,327
18.84.912	12	1	5,714



new product

16x2 Eurocone Connection Set

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.09.520	16x2	150	0,055



new product

20x2 Eurocone Connection Set

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.09.522	20x2	125	0,079

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



Stainless Steel Manifold Set with Flow Meter

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.22.902	2	1	1,910
18.22.903	3	1	2,370
18.22.904	4	1	2,820
18.22.905	5	1	3,230
18.22.906	6	1	3,690
18.22.907	7	1	4,170
18.22.908	8	1	4,570
18.22.909	9	1	4,990
18.22.910	10	1	5,470
18.22.911	11	1	5,930
18.22.912	12	1	6,330



Brass Manifold Set with Flow Meter

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.25.902	2	1	2,500
18.25.903	3	1	2,970
18.25.904	4	1	3,420
18.25.905	5	1	3,830
18.25.906	6	1	4,400
18.25.907	7	1	4,770
18.25.908	8	1	5,170
18.25.909	9	1	5,600
18.25.910	10	1	6,070
18.25.911	11	1	6,530
18.25.912	12	1	6,930

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



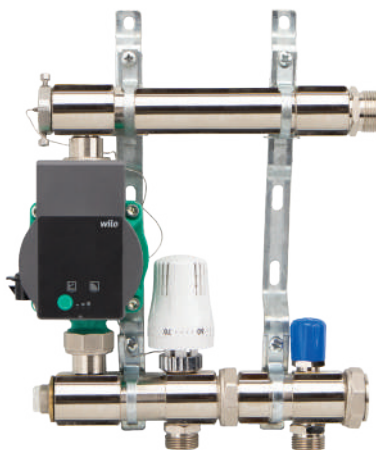
Manifold with Flow Meter

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.31.902	2	8	0,490
18.31.903	3	8	0,700
18.31.904	4	4	0,910
18.31.905	5	4	1,100
18.31.906	6	4	1,320
18.31.907	7	4	1,550
18.31.908	8	4	1,810
18.31.909	9	4	2,030
18.31.910	10	4	2,220
18.31.911	11	4	2,500
18.31.912	12	2	2,680



Manifold with Thermostatic Insert

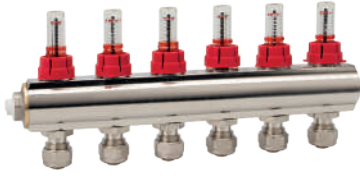
PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.32.902	2	8	0,520
18.32.903	3	8	0,780
18.32.904	4	4	0,970
18.32.905	5	4	1,250
18.32.906	6	4	1,470
18.32.907	7	4	1,740
18.32.908	8	4	1,960
18.32.909	9	4	2,180
18.32.910	10	4	2,400
18.32.911	11	4	2,680
18.32.912	12	3	2,880



Compact Mixing Circuit

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.01.001	-	1	2,900

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



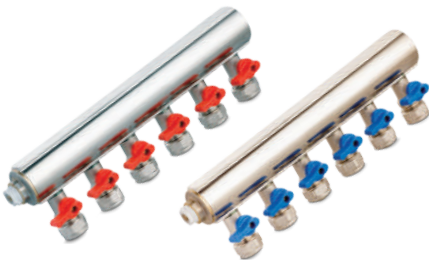
1" Flow Meter Controlled Manifold (16X2)

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.15.502	2	21	0,579
18.15.503	3	14	0,870
18.15.504	4	14	1,146
18.15.505	5	14	1,443
18.15.506	6	7	1,740
18.15.507	7	7	2,016
18.15.508	8	7	2,313
18.15.509	9	7	2,410
18.15.510	10	7	2,836
18.15.511	11	7	3,183
18.15.512	12	7	3,480
18.15.513	13	7	3,756



1" Thermostatic Manifold (16X2)

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.16.502	2	30	0,655
18.16.503	3	20	0,971
18.16.504	4	20	1,262
18.16.505	5	20	1,578
18.16.506	6	10	1,894
18.16.507	7	10	2,185
18.16.508	8	10	2,501
18.16.509	9	10	2,817
18.16.510	10	10	3,108
18.16.511	11	10	3,424
18.16.512	12	10	3,740
18.16.513	13	10	4,001



Mini Valve 3/8" Manifold 1"

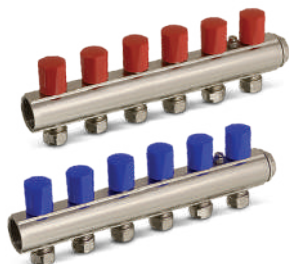
PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.19.882	2	30	0,485
18.19.883	3	20	0,705
18.19.884	4	20	0,940
18.19.885	5	20	1,150
18.19.886	6	10	1,360
18.19.887	7	10	1,580
18.19.888	8	10	1,860
18.19.889	9	10	2,030
18.19.890	10	10	2,260
18.19.891	11	10	2,430
18.19.892	12	10	2,600
18.19.893	13	10	2,880



1" Manifold Profile

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.02.352	2	20	0,373
18.02.353	3	20	0,531
18.02.354	4	20	0,710
18.02.355	5	20	0,890
18.02.356	6	10	1,035
18.02.357	7	10	1,248
18.02.358	8	10	1,425
18.02.359	9	10	1,560
18.02.360	10	10	1,725
18.02.361	11	10	1,903
18.02.362	12	10	2,139
18.02.363	13	10	2,443

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



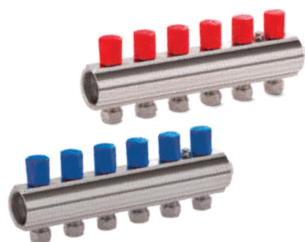
1" Manifold Completed Type

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.01.482	2	30	0,492
18.01.483	3	20	0,713
18.01.484	4	20	0,924
18.01.485	5	20	1,142
18.01.486	6	10	1,372
18.01.487	7	10	1,583
18.01.488	8	10	1,793
18.01.489	9	10	2,011
18.01.490	10	10	2,248
18.01.491	11	10	2,493
18.01.492	12	10	2,687
18.01.493	13	10	3,000



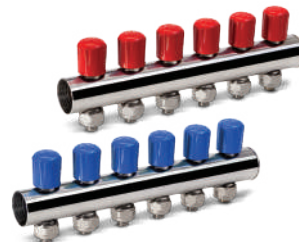
1" Completed Type Manifold - (Eco)

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.01.582	2	30	0,469
18.01.583	3	20	0,713
18.01.584	4	20	0,854
18.01.585	5	20	1,042
18.01.586	6	10	1,239
18.01.587	7	10	1,423
18.01.588	8	10	1,619
18.01.589	9	10	1,796
18.01.590	10	10	1,991
18.01.591	11	10	2,165
18.01.592	12	10	2,757
18.01.593	13	10	3,000



1 1/4" Manifold Completed Type

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.03.702	2	16	0,750
18.03.703	3	16	1,128
18.03.704	4	16	1,469
18.03.705	5	16	1,804
18.03.706	6	8	1,926
18.03.707	7	8	2,462
18.03.708	8	8	2,514
18.03.709	9	8	2,851
18.03.710	10	8	3,136
18.03.711	11	8	3,805
18.03.712	12	8	4,145
18.03.713	13	8	4,479



1" Stainless Steel Manifold (PN10)

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.21.782	2	30	0,395
18.21.783	3	20	0,550
18.21.784	4	20	0,720
18.21.785	5	20	0,880
18.21.786	6	10	1,040
18.21.787	7	10	1,174
18.21.788	8	10	1,332
18.21.789	9	10	1,536
18.21.790	10	10	1,675

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS

new product



Pe-Rt Pipe - 5 Layer

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
80.50.016	16x2	160	0,090
80.50.017	17x2		
80.50.020	20x2		

Pex-B Pipe

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
80.00.016	16x2	200	0,121
80.01.016	16x2	100	0,117
80.02.016	16x2	100	0,117
81.00.016	O ₂ Barrier	160	0,090
81.01.016	O ₂ Barrier	100	0,125
81.02.016	O ₂ Barrier	100	0,125

Pe-Rt Pipe

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
80.20.016	16x2	200	0,090
80.21.016	16x2	100	0,123
80.22.016	16x2	100	0,123
80.10.016	O ₂ Barrier 16x2	160	0,093
80.10.017	O ₂ Barrier 17x2		
80.10.016	O ₂ Barrier 20x2		
80.11.016	O ₂ Barrier	100	0,126
80.12.016	O ₂ Barrier	100	0,126

Pex Al-Pex Pipe

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
80.30.016	16x2	200	0,106

new product



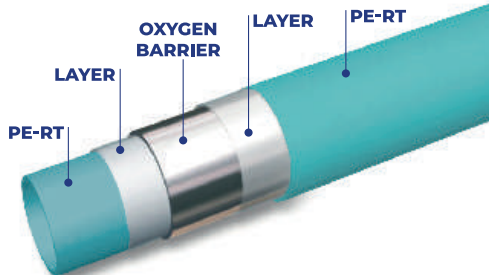
PE-RT 5 LAYER OXYGEN BARRIER PIPE

- PE-RT phrase is the short form of pipes resistant to **raised temperature**.
- KAS uses new generation **Type 2 PE-RT raw material** in production to offer better pressure resistance.
- Since no chemical material is used, it doesn't lead to health problems and is available to **use for drinking water**.
- KAS PE-RT pipes are packed as rolls, have **very flexible form** and can be easily assembled.

OFFERS PROTECTION FROM EXTERNAL IMPACTS AND HITS

BENEFITS OF KAS PE-RT 5 LAYER PIPE

- It has a flexible form, so can be easily assembled without any additional piece required.
- High temperature and pressure resistance.
- Environment friendly recyclable raw material.
- High resistance against chemicals.
- Easy installation during cold weather conditions without any heating requirement.
- No calcification or corrosion occurs inside the pipe.
- No inner diameter shrinking occurs.
- Can be used for drinking water.
- Pipe rolls can be easily moved and installed.



▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



Under Floor Union For Pipe Connection

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
06.01.314	16x2	250	0,054



Under Floor Union For Pipe Connection

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
06.01.317	17x2	250	0,080
06.01.318	16x2	250	0,054



Hose Connection Coupling

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
06.03.320	16x2	250	0,079



Under Floor Union For Pipe Connection

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
06.02.315	16x2	250	0,062
06.02.316	17x2	250	0,085



Hose Connection Coupling

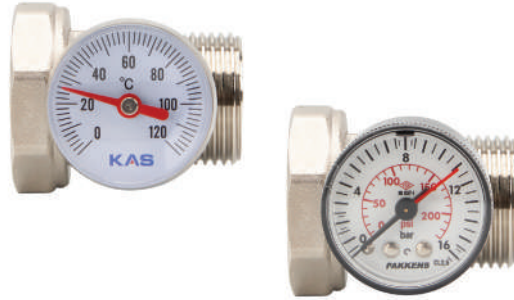
PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
06.03.319	16x2	250	0,084



Under Floor Heating Hose Blind Plug

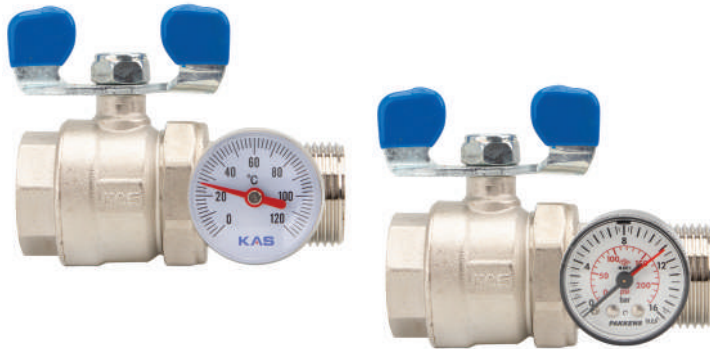
PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
06.04.480	16x2	250	0,079

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



Thermometer & Manometer Manifold Union

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.06.005	1" Thermometer	30	0,225
20.06.006	1" Manometer	30	0,265



Ball Valve With Thermometer & Manometer

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
08.15.327	1" Thermometer	20	0,550
08.16.327	1" Manometer	20	0,570

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



Double Sided Connection Valve

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.06.001	1"	50	0,235



Combined Air Separator

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
80.60.710	1"	6	0,992



2 Way Motorized Ball Valve

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.05.002	1"	10	0,900



2 Way Valve - 3 Way Valve

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.06.002	1"	30	0,410
20.06.003	1"	30	0,680

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



Manifold By-pass

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
14.01.878	16x2	40	0,286



Manifold By-pass / H-Ventil

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
06.05.881	H-Ventil	40	0,335



Air Vent

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
80.57.507	1/2"	76	0,134



1" Drain Cock For Manifold

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.09.350	Manuel	75	0,180
18.09.351	Auto	50	0,256



Manifold Clamp

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
18.20.502	1"	40	0,224
18.20.503	1 1/4"	30	0,282
18.20.504	1"	40	0,215



Manifold Box

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
70.01.390	40x60	1	6,600
70.01.391	60x60	1	7,480
70.01.392	80x60	1	10,000

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



**Mini Brass Ball Valve With
Hose Conn. Socket + Blind Plug**

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
05.04.322	1/2"	100	0,129



**Mini Brass Ball Valve For
Pipe Connection**

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
05.01.312	Pex-B F 16x2	180	0,125
05.01.313	Pex-B F 17x2	150	0,135



**Mini Brass Ball Valve For
Pipe Connection**

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
05.02.312	Pex-B M 16 x 2	150	0,146
05.02.313	Pex-B M 17 x 2	150	0,156
05.02.311	Pex-B M 16 x 2	150	0,156
05.04.313	Pex-B M 20 x 2	120	0,166



Mini Brass Ball Valve

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
05.03.321	3/8"	250	0,062
05.03.322	1/2"	200	0,097
05.03.323	3/4"	120	0,143

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



Actuator

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.07.203	230 V NC, 1 WATT	40	0,145



Circulation Pump

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.07.101	-	1	1,900



Pipe Connection Fittings

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.06.004	16x2	20	0,042



Heat Sensor Cable

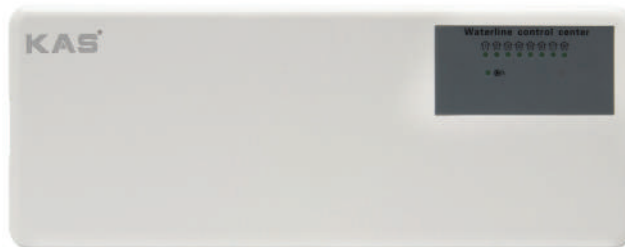
PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.07.401	-	1	-

▲ MANIFOLD AND UNDERFLOOR HEATING GROUPS



Digital - Analogue Room Thermostat

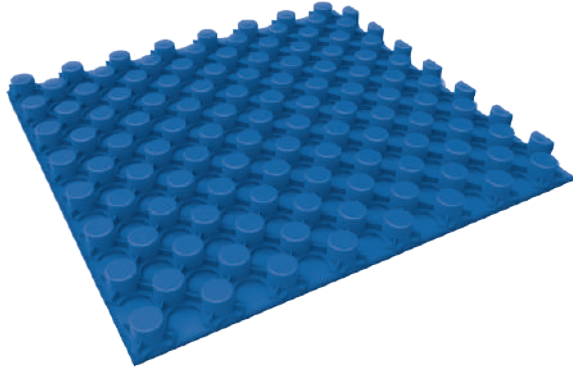
PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.07.305	Digital - 230 V / +5 °C +30 °C Temperature Range	36	-
20.07.304	Analogue - 230 V / +5 °C +30 °C Temperature Range	36	-



Base Station

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.07.006	6 Zone Maximum	5	0,460
20.07.008	8 Zone Maximum	5	0,562
20.07.010	10 Zone Maximum	5	0,595

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Underfloor Heating Insulation Panel

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Kgs
20.08.010	72x72 cm	10	0,500
20.08.011	60x120 cm	10	-
20.08.020	Edge Insulation Tap 25m	1	0,152



Screed Concrete Additive

PRODUCT CODE	SIZE	PCS/BOX	Pcs/Net Lt
20.08.002	-	1	10

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Pipe Sealant

PRODUCT CODE	PCS/BOX	Pcs/Net ML
74.01.711	120	50

General information

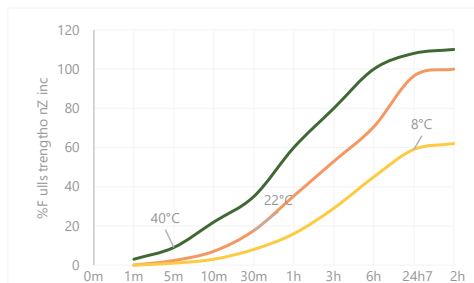
PS 43 anaerobic adhesive and sealants are advanced materials with single component and solvent free feature. The products are specifically formulated for sealing, retaining, locking and bonding of metal or metal plated assemblies. Anaerobic adhesives are stable when in contact with oxygen in air. As the product is placed between two mating metallic surfaces, where oxygen contact is vanished, polymerization starts and forms strong, vibration and pressure proof polymer layer.

Product description

PS 43 Pipe Sealant 5543 is a medium viscosity and medium strength anaerobic pipe sealant. Thixotropic formulation reduces run-off and migration of the product before assembly. It can be easily applied to threaded joints and removed easily with hand tools. With its specialized formulation, Pipe Sealant 5543 can be used applications where high pressure proof or oil resistance is required. The product resists very high pressures, after full curing.

Curing speed at different temperatures

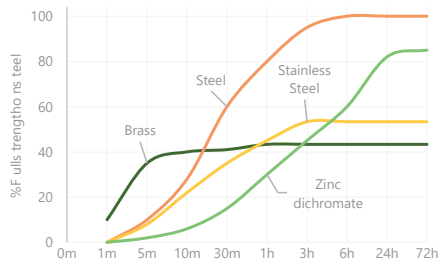
Temperature of medium has great impact on curing performance of anaerobic adhesive. The curing rate developed in time is determined by measuring breakaway torque of bolt and nut specimens. Test details and resultant graphs are given below.



Test method	:	ISO 10964
Bolt and nut specs.	:	M10x25
Conditions	:	22°C

Curing speed with different substrates

The curing rate of anaerobic adhesive greatly depends on type of surface material, substrate. The curing rate developed in time is determined by measuring breakaway torque of bolt and nut specimens. Test details and resultant graphs are given below.



Underfloor Heating Systems

What is Underfloor Heating?

Underfloor heating is a heating system that provides climate control in residences by using conduction and convection currents. It is quite advantageous in terms of thermal comfort, ergonomics, energy efficiency and safety.

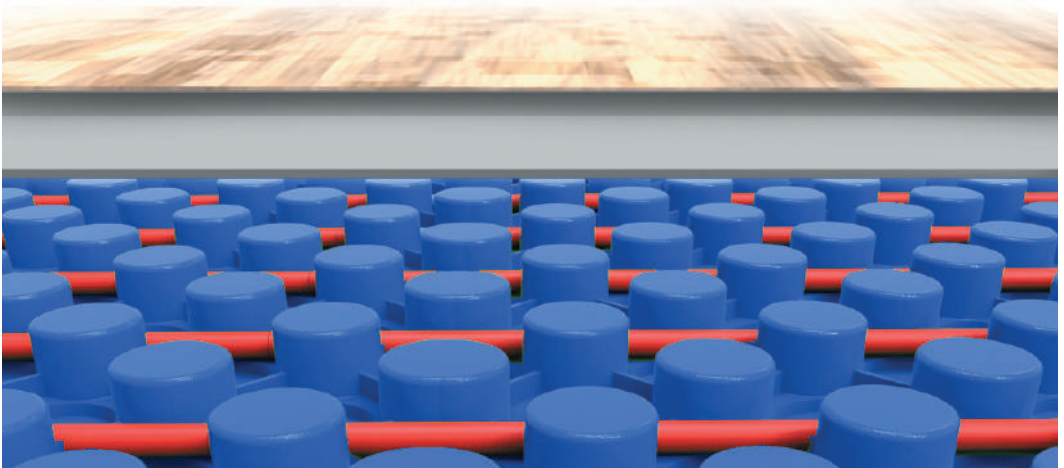
It can be applied in any location and climate if the right engineering planning is carried out. Heating is provided by warm water between 30°C - 50°C. Heat distribution is homogeneous and unlike other heating systems, there is no heat accumulation on the ceiling. It can be used in residences, schools, hospitals, mosques, mass residences, Turkish baths, swimming pools, greenhouses, airports, roads and all similar places.

How do we do it ?

Different temperature values are recommended according to TS 2164 for comfort and health purposes in every living space. In order to increase the efficiency in heating systems, it is necessary to use quality materials, to have good insulation, and to execute room-based floor heating calculations professionally.

As a result of the professional R&D studies of KAS Company, KAS Therm Brand has been created for underfloor heating systems.

KAS Therm Team closely follows the constantly developing heating system techniques and technologies, and carries out studies for quality materials, quality infrastructure and highly efficient air conditioning.



Combined Air Separator

Heating Systems Accessories

Measurement Ranges: 0-4 bar

Working Pressure: %75 of Full Scale

Overpressure Resistance: 1,25x Full Scale

Working Temperature Range: -20 + 60° C

Connections: G 1/4" Bottom

Note: Other pressure ranges can be ordered.





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