

Product guide

# PP-R and PP-RCT Pipe Systems

Hot and Cold Water Systems  
and Heating Applications

NEW



wavin



NOVEMBER 2021

Wavin is one of the leading companies in the plastic pipe industry in Turkey. Our company offers a wide range of high-quality pipe and fittings system solutions for building and infrastructure. Our company, which has a history of more than half a century, started production in 1971 in Adana. Pilsa Plastik A.Ş. was purchased by Wavin B.V, the largest European company in its own field in the Netherlands in 2008.

In 2012, all Wavin companies joined the Mexichem family which is South America's giant petrochemicals and raw materials producer. Mexichem announced its new name as ORBIA in 2019. ORBIA, with its new changing business structure, provides professional support to its customers with its products and services in 5 main business lines: Building & Infrastructure, Flour, Datacom, Precision Agriculture and Polymer Solutions. With the new structuring of ORBIA, its main mission is to advance life around the world.

In 2019, with the renewed business structure of ORBIA, building & infrastructure business line was started to represent by WAVIN, a single and strong brand across the globe. WAVIN operates in more than 40 countries around the world in 4 main regions: Europe-Middle East-Africa, Asia-Pacific, Latin America and USA-Canada with 12.000 employees.

Wavin is now a global leader in the supply of plastic pipe systems and solutions for both above and below ground applications in projects around the world. Since the 1950s, we have built an unrivalled reputation for continuous innovation, intelligent problem-solving, dedicated technical support and the highest standards.

Wavin Turkey offers traditional products such as PPR-C clean water, PVC wastewater as well as the innovative products such as Tigris Press-fit systems, Sentio underfloor heating control, SiTech+ low noise pipes, Qickstream siphonic rainwater drainage systems, Q-Bic Plus infiltration systems, Tegra plastic manholes etc. to the sector. Wavin Academy which is the first training centre of the sector was opened in 2014 within our factory in Adana, Tens of thousands of visitors from various levels of the mechanical installation sector have been able to increase their expertise by attending training at Wavin Academy since 2014. Our company provides fast service with Adana, Istanbul, Ankara and Izmir offices, distribution centres located in Istanbul and Adana and wide dealers network. In addition to our sales staff, our expert engineers and technical personnel support our customers for the projects.

To get more information about our company and products, please visit our website [www.wavin.com.tr](http://www.wavin.com.tr) and follow us on our social media accounts.

## Building Healthy, Sustainable Environments

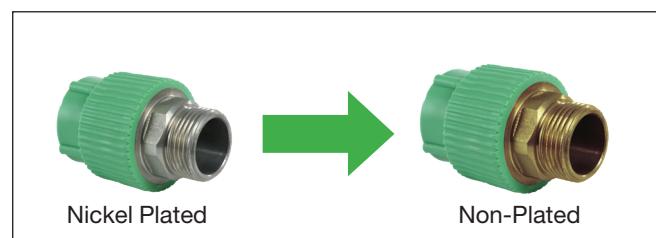
Our purpose is "Building Healthy, Sustainable Environments" as Wavin in global. To reach that goal one first driver is "Safe and Efficient Water Supply". We care human health and this is the way how we manage our product portfolio.



PPR Pipes and Fittings used in several applications like potable water, heating and cooling or industrial applications. The PPR system basically based on pipes, full plastic fittings, fittings with inserts, valves and tools.



According to the European drinking water directive and hygienic assessment of materials in contact with drinking water, nickel coating is no more applicable for tap water installations. That is why we removed nickel coating from our PPR fittings with metal inserts which are used in drinking water applications globally.



The new PPR Fittings are non-coated brass alloy which is in the acceptable alloy list in 8th revision of 4MS 2017. Metal deactivators are used in the recipe in order to avoid any damage on plastic parts that may be caused by free metal ions from inserts. This application is valid for every color of fitting. PPR Fittings will continue to meet all performance requirements of EN ISO 15874-3 standard. You can reach to international product certifications via Wavin representative.



## Extensive Product Range

### Above Ground Product Groups:

- PPR&PP-RCT Pipes & Fittings and Composite PPR & PP-RCT Pipes
- PEX and Pert Pipes - Protected PEX and Pert Pipes and Fittings
- OXY PEX and Pert Pipes - Protected OXY PEX and Pert Pipes
- Underfloor Heating and Sentio control systems
- Tigris Press Fitting Systems
- Wavin AS+, SiTech+ and SiTech B1 low noise systems
- Wavin Quickstream Siphonic Roof Drainage System
- U-PVC Soil and Waste System
- HepVO Waterless Trap

### Below Ground Product Groups:

- U-PVC Pressure Pipes & Fittings
- PE Pipes (LDPE & HDPE)
- Wavin PE Fittings (Electrofusion - Spigot)
- Wavin Plastic Manholes (Inspection Chambers) & Fittings
- Apollo O-PVC Pressure Pipes
- Separators
- Road Gullies
- Storm Water Tanks

## Why Would You Collaborate With Wavin Turkey?

Wavin Turkey provides the best quality as one of the market leader and:

- ▶ Uses the most appropriate raw material,
- ▶ Has the most advanced high technology,
- ▶ Produces pipes in compliance with Turkish (TS), European (EN) and German(DIN) Standards,
- ▶ Produces pipes not only for water management but also a wide range of fluids.
- ▶ Has qualified technical staff in order to solve your problems.
- ▶ Stands for quality.

## Why Would You Prefer Pilsa Pipes?

Pilsa has got the following advantages:

- ▶ Not dangerous for human life, non-toxic, non-cancerous,
- ▶ Low cost of transportation; loading and unloading
- ▶ Has much longer service life compared to other piping systems,
- ▶ Has high resistance against corrosion,
- ▶ Can easily be connected to any kind of pipe. Due to low cost of plumbing, it has a wide range of applications,
- ▶ Water is one of the most important essential contributing to human life; Pilsa pipes provide this vital fluid to your households in an easy and healthy way at a competitive price

## PİLSA POLYPROPYLENE PIPES

### • Pilsatherm Pipes (PPR-Mono Layer)

- ▶ Superior physical characteristics at 90°C,
- ▶ High chemical resistance,
- ▶ Definite solutions to calcification and corrosion,
- ▶ No bacteria and moss reproduction within the pipes,
- ▶ Light, easy to install and low labor cost of installation,
- ▶ Safe to use various pressurized liquids and gas,
- ▶ No reduction in diameter at welding points,
- ▶ 60°C, 10 bars and 70°C, 8 bar pressure resistance for a service life of 50 years.
- ▶ Can be used in drinking water systems and has a quality certificate issued by the Ministry of Health and Hygiene-Institute

### • Pilsa Plus Pipes (PP-RCT Mono Layer)

- ▶ Pilsa Plus pipes are made of the raw material PP-RCT which is new generation polypropylene designed for hot and cold water systems.
- ▶ It is the better pipe with higher flow rate, improved pressure resistance and easier to handle.
- ▶ It has improved pressure resistance at higher temperatures for long term period.
- ▶ It has 37 % larger inner flow area
- ▶ Larger inner bore and better flow rates
- ▶ Pilsa Plus can be used with all standard Pilsa PP-R fittings
- ▶ Available in different color options

### • Glass Fiber Reinforced Composite Pipes (PPR-Multi Layer)

- ▶ GFR PPR pipe is multilayered and elongates less during the heat differences.
- ▶ Unlike aluminium foiled pipes; there is no need to shave the end of the pipe. This provides ease of install.
- ▶ The linear coefficient of thermal expansion is very low (0,035mm/mK); accordingly greater stability. In comparison to standard pipes total quantity of clamps used is less, therefore total expenses reduces.
- ▶ Thermal transmission is 1.10 W/mK This is lower than iron, copper and aluminium foiled PP pipes. It is extremely light Therefore it is easy to transport, easy to install.
- ▶ It does not cause a change in the color, smell or the taste of water. It has a hygienic structure. Can easily be used for hot and cold water systems

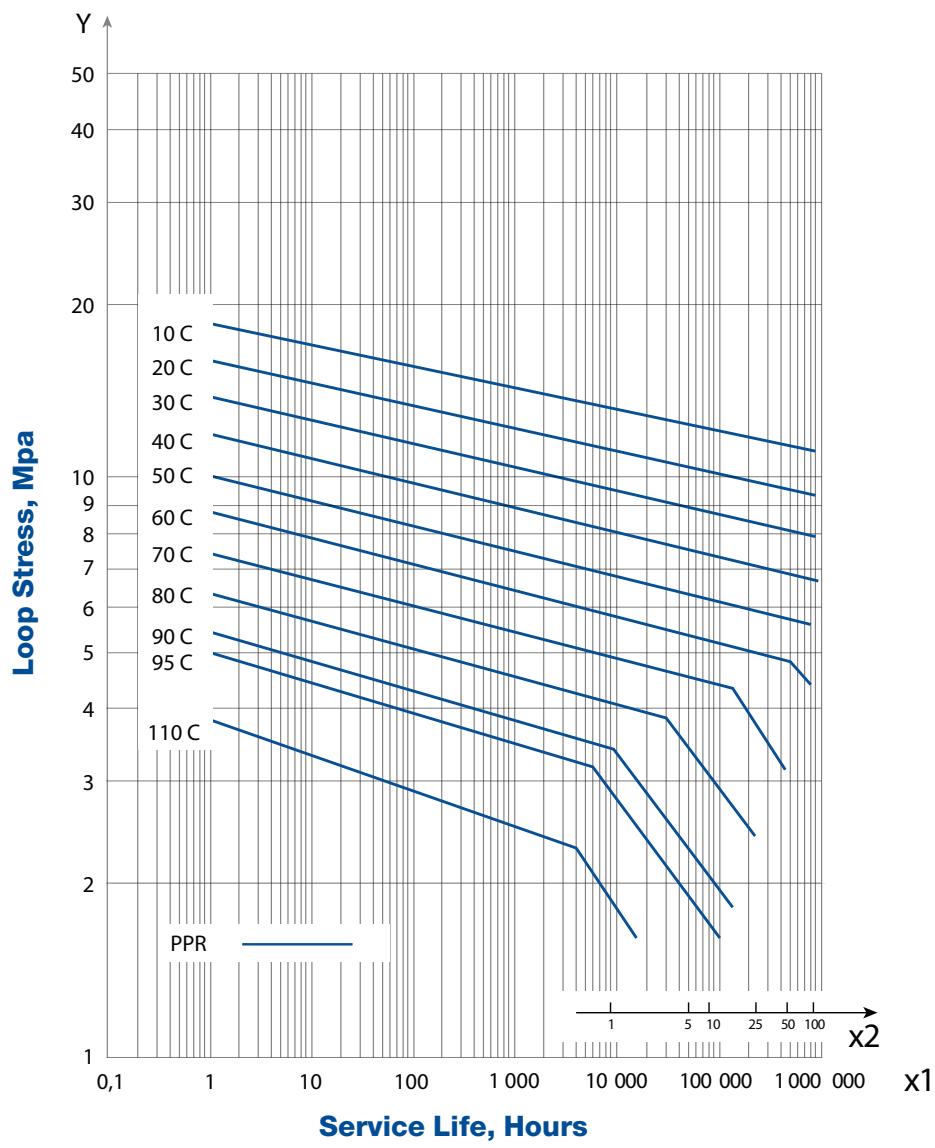
### • Basalt Fiber Composite Pipes (PP-RCT Multi Layer)

- ▶ Pipes are multilayer and made of the raw material PP-RCT which is new generation polypropylene designed for hot and cold water systems.
- ▶ Basalt fiber is made of pulping melted basalt stones of suitable composition.
- ▶ It is very durable and flexible and used in many different industries.
- ▶ Properties of basalt fiber significantly exceed glass fiber.
- ▶ Manufacturing of basalt fiber is very ecological and 100% recyclable
- ▶ 4-x lower linear thermal expansion than solid wall pipes,
- ▶ No need to shave before welding
- ▶ Higher pressure resistance at higher temperatures by up to 50%
- ▶ Temperature resistance up to 90°C
- ▶ Higher flow rate by up to 20%

## PHYSICAL AND MECHANICAL PROPERTIES OF RAW MATERIAL - PP-R

| Properties                                  | Testing Conditions           | Unit              | Testing Method | Result      |
|---|------------------------------|-------------------|----------------|-------------|
| MRS Classification                          | 20°C, extrapolation 50 years | MPa               | ISO 9080       | 10          |
| Density                                     | 23°C                         | g/cm³             | ISO 1183       | 0,89 - 0,91 |
| Melting Flow Index MFI                      | 190°C, 5 kg                  | g/10dk<br>g/10min | ISO 1133       | 0,4 - 0,6   |
|   | 230°C, 2,16 kg               |                   |                | 0,2 - 0,5   |
|   | 230°C, 5 kg                  |                   |                | 0,8 - 1,3   |
| Tensile Stress at Yield                     | 23°C, 50 mm/dk<br>50 mm/min  | MPa               | ISO 527        | 23 - 28     |
| Tensile Strain at Yield                     | 23°C, 50 mm/dk<br>50 mm/min  | %                 | ISO 527        | min %10     |
| Elasticity Modulus                          | 23°C, 1 mm/dk<br>1 mm/min    | MPa               | ISO 527        | 800 - 1000  |
| Charpy Notched Impact Strength              | 0°C                          | kJ/m²             | ISO 179        | >3,5        |
| Thermal Conductivity                        | -                            | W/(m K)           | DIN 52612      | 0,24        |
| Coefficient of Thermal Expansion (0°C/90°C) | -                            | 1/K               | DIN 53752      | 1,5*10⁻⁴    |

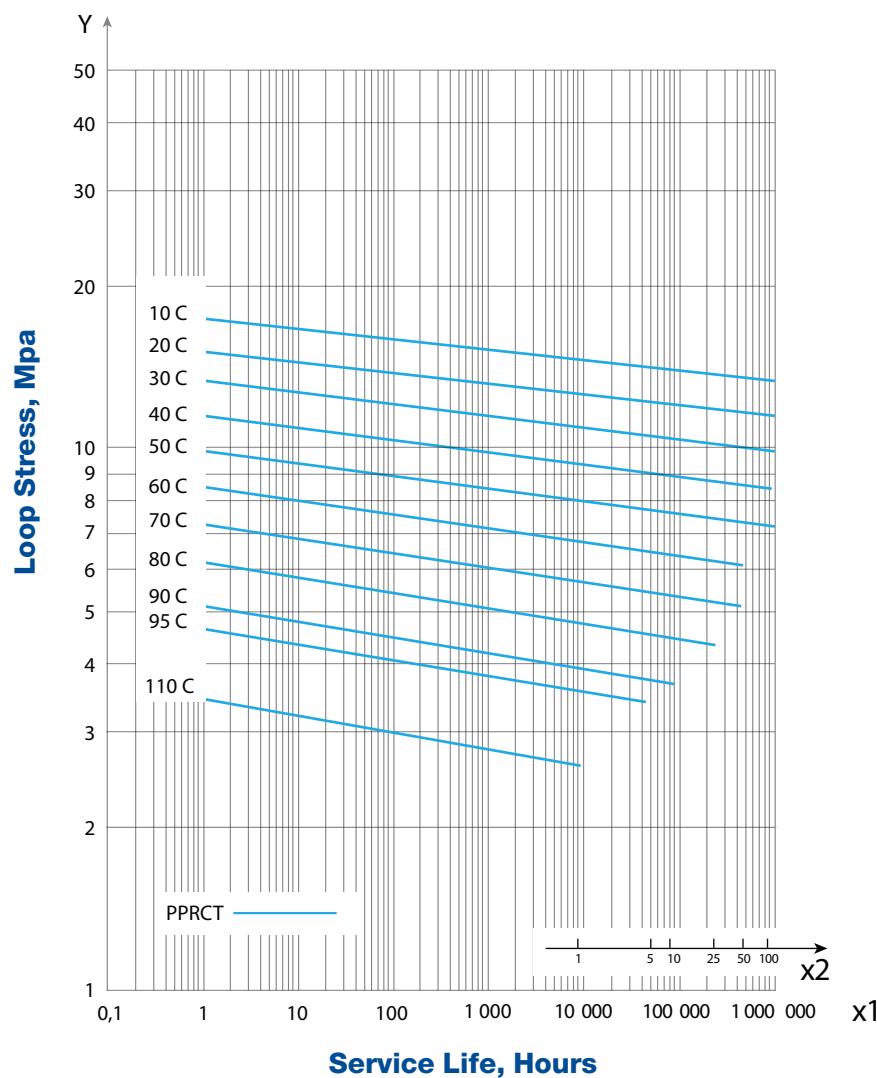
## ISOTHERMAL MECHANICAL STRENGTH GRAPHIC FOR PP-R



## PHYSICAL AND MECHANICAL PROPERTIES OF RAW MATERIAL - PP-RCT

| Properties                                  | Testing Conditions           | Unit              | Testing Method | Result      |
|---|------------------------------|-------------------|----------------|-------------|
| MRS Classification                          | 20°C, extrapolation 50 years | MPa               | ISO 9080       | 11,2        |
| CRS Classification                          | 70°C, extrapolation 50 years | MPa               | ISO 9080       | 5,3         |
| Density                                     | 23°C                         | g/cm³             | ISO 1183       | 0,89 - 0,91 |
| Melting Flow Index MFI                      | 190°C, 5 kg                  | g/10dk<br>g/10min | ISO 1133       | 0,4 - 0,6   |
|   | 230°C, 2,16 kg               |                   |                | 0,2 - 0,5   |
|   | 230°C, 5 kg                  |                   |                | 0,8 - 1,3   |
| Tensile Stress at Yield                     | 23°C, 50 mm/dk<br>50 mm/min  | MPa               | ISO 527        | 23 - 28     |
| Tensile Strain at Yield                     | 23°C, 50 mm/dk<br>50 mm/min  | %                 | ISO 527        | min %10     |
| Elasticity Modulus                          | 23°C, 1 mm/dk<br>1 mm/min    | MPa               | ISO 179        | 800 - 900   |
| Charpy Notched Impact Strength              | 0°C                          | kJ/m²             | ISO 179        | 9,5         |
| Izod Notched Impact Strength                | 0°C                          | kJ/m²             | DIN 52612      | 17          |
| Thermal Conductivity                        | -                            | W/(m K)           | DIN 52612      | 0,24        |
| Coefficient of Thermal Expansion (0°C/90°C) | -                            | 1/K               | DIN 53752      | 1,5*10⁻⁴    |

## ISOTHERMAL MECHANICAL STRENGTH GRAPHIC FOR PP-RCT

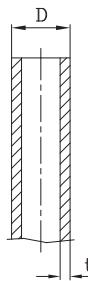


## OPERATING PARAMETERS FOR PP-R & PP-RCT PIPES

|         |             | PP-R Pipe<br>Glass Fiber Reinforced PP-R Pipe |               |            | PP-RCT Pipe / Basalt Reinforced<br>PP-RCT Pipe |           |            |
|---------|-------------|---|---------------|------------|--|-----------|------------|
|         |             | Operating Pressure                            |               |            | Operating Pressure                             |           |            |
| Temp °C | Life (year) | S 2,5 SDR 6                                   | S 3,2 SDR 7,4 | S 5 SDR 11 | S 3,2 SDR 7,4                                  | S 4 SDR 9 | S 5 SDR 11 |
| 10      | 1           | 35,1  | 27,8          | 17,5       | 30,2   | 24,0      | 19,0       |
|         | 5           | 33,0  | 26,2          | 16,5       | 29,3   | 23,2      | 18,4       |
|         | 10          | 32,2  | 25,6          | 16,1       | 28,9   | 22,9      | 18,2       |
|         | 25          | 31,1  | 24,7          | 15,6       | 28,4   | 22,5      | 17,9       |
|         | 50          | 30,3  | 24,1          | 15,2       | 28,0   | 22,2      | 17,7       |
|         | 100         | 29,6  | 23,5          | 14,8       | 27,6   | 21,9      | 17,4       |
| 20      | 1           | 29,9  | 23,7          | 15,0       | 26,3   | 20,9      | 16,6       |
|         | 5           | 28,1  | 22,3          | 14,1       | 25,4   | 20,2      | 16,0       |
|         | 10          | 27,4  | 21,7          | 13,7       | 25,1   | 19,9      | 15,8       |
|         | 25          | 26,4  | 21,0          | 13,2       | 24,6   | 19,6      | 15,5       |
|         | 50          | 25,7  | 20,4          | 12,9       | 24,3   | 19,3      | 15,3       |
|         | 100         | 25,0  | 19,9          | 12,5       | 24,0   | 19,0      | 15,1       |
| 30      | 1           | 25,4  | 20,2          | 12,7       | 22,7   | 18,1      | 14,3       |
|         | 5           | 23,8  | 18,9          | 11,9       | 22,0   | 17,4      | 13,9       |
|         | 10          | 23,2  | 18,4          | 11,6       | 21,7   | 17,2      | 13,6       |
|         | 25          | 22,3  | 17,7          | 11,2       | 21,2   | 16,9      | 13,4       |
|         | 50          | 21,7  | 17,2          | 10,9       | 20,9   | 16,6      | 13,2       |
|         | 100         | 21,1  | 16,8          | 10,6       | 20,6   | 16,4      | 13,0       |
| 40      | 1           | 21,6  | 17,1          | 10,8       | 19,6   | 15,5      | 12,3       |
|         | 5           | 20,2  | 16,0          | 10,1       | 18,9   | 15,0      | 11,9       |
|         | 10          | 19,6  | 15,5          | 9,8        | 18,6   | 14,7      | 11,7       |
|         | 25          | 18,8  | 15,0          | 9,4        | 18,2   | 14,4      | 11,5       |
|         | 50          | 18,3  | 14,5          | 9,2        | 17,9   | 14,2      | 11,3       |
|         | 100         | 17,8  | 14,1          | 8,9        | 17,6   | 14,0      | 11,1       |
| 50      | 1           | 18,2  | 14,5          | 9,1        | 16,7   | 13,3      | 10,5       |
|         | 5           | 17,0  | 13,5          | 8,5        | 16,4   | 12,8      | 10,1       |
|         | 10          | 16,5  | 13,1          | 8,2        | 15,8   | 12,6      | 10,0       |
|         | 25          | 15,9  | 12,6          | 7,9        | 15,5   | 12,3      | 9,7        |
|         | 50          | 15,4  | 12,2          | 7,7        | 15,2   | 12,1      | 9,6        |
|         | 100         | 14,9  | 11,8          | 7,5        | 15,0   | 11,9      | 9,4        |
| 60      | 1           | 15,4  | 12,2          | 7,7        | 14,2   | 11,2      | 8,9        |
|         | 5           | 14,3  | 11,3          | 7,1        | 13,6   | 10,8      | 8,6        |
|         | 10          | 13,9  | 11,0          | 6,9        | 13,4   | 10,6      | 8,4        |
|         | 25          | 13,3  | 10,5          | 6,6        | 13,1   | 10,4      | 8,2        |
|         | 50          | 12,9  | 10,2          | 6,4        | 12,8   | 10,2      | 8,1        |
| 70      | 1           | 12,9  | 10,3          | 6,5        | 11,9   | 9,4       | 7,5        |
|         | 5           | 12,0  | 9,5           | 6,0        | 11,4   | 9,1       | 7,2        |
|         | 10          | 11,6  | 9,2           | 5,8        | 11,2   | 8,9       | 7,0        |
|         | 25          | 10,0  | 8,0           | 5,0        | 10,9   | 8,7       | 6,9        |
|         | 50          | 8,5   | 6,7           | 4,2        | 10,7   | 8,5       | 6,8        |
| 80      | 1           | 10,8  | 8,6           | 5,4        | 9,9  | 7,9       | 6,2        |
|         | 5           | 9,6   | 7,6           | 4,8        | 9,5  | 7,5       | 6,0        |
|         | 10          | 8,1   | 6,4           | 4,0        | 9,3  | 7,4       | 5,9        |
|         | 25          | 6,5   | 5,1           | 3,2        | 9,1  | 7,2       | 5,7        |
| 95      | 7,6         | 1   | 6,1           | 3,8        | 7,4  | 5,9       | 4,7        |
|         | 5,2         | 5   | 4,1           | 2,6        | 7,1  | 5,6       | 4,4        |
|         | 4,3         | 10  | (3,4)         | (2,2)      | (6,9)  | (5,5)     | (4,3)      |

**\*Safety Factor (C): 1,5**

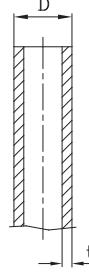
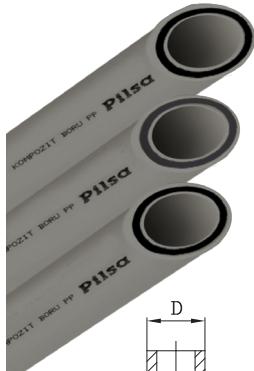
## Pipes and fittings



### Pilsatherm Pipe (PPR-4mt)

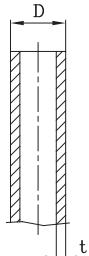
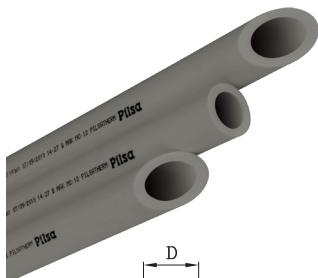
| D<br>(mm) | t (mm)<br>(10 Bar) | t (mm)<br>(16 Bar) | t (mm)<br>(20 Bar) | s 5<br>SDR 11<br>PN 10 | s 3,2<br>SDR 7,4<br>PN 16 | s 2,5<br>SDR 6<br>PN 20 | Bundle |
|-----------|--------------------|--------------------|--------------------|------------------------|---------------------------|-------------------------|--------|
| 20        | 1.9                | 2,8                | 3.4                | 3040240                | 3050623                   | 3050630                 | 25     |
| 25        | 2.3                | 3,5                | 4.2                | 3040241                | 3050638                   | 3050644                 | 20     |
| 32        | 2.9                | 4,4                | 5.4                | 3040242                | 3050652                   | 3050658                 | 10     |
| 40        | 3.7                | 5,5                | 6.7                | 3040243                | 3050666                   | 3050670                 | 5      |
| 50        | 4.6                | 6,9                | 8.3                | 3040244                | 3050676                   | 3050680                 | 5      |
| 63        | 5.8                | 8,6                | 10.5               | 3040245                | 3050686                   | 3050690                 | 3      |
| 75        | 6.8                | 10,3               | 12.5               | 3040246                | 3050695                   | 3050699                 | 2      |
| 90        | 8.2                | 12,3               | 15.0               | 3040247                | 3050704                   | 3040269                 | 2      |
| 110       | 10.0               | 15,1               | 18.3               | 3040248                | 3050712                   | 3040270                 | 1      |
| 125       | 11.4               | 17,1               | 20.8               | 3050719                | 3050721                   | 3040271                 | 1      |
| 160       | 14.6               | 21,9               | 26.6               | 3050724                | 3085004                   | 3050725                 | 1      |
| 200       | 18.2               | 27,4               | 33.2               | -                      | -                         | 3050726                 | 1      |

- upon request



### Pilsa GlassFiber Reinforced Pipe (PPR-4mt)

| D<br>(mm) | t (mm)<br>(25 Bar) | s 2,5<br>SDR 6<br>PN 25 | s 3,2<br>SDR 7,4<br>PN 20 | Bundle | t (mm)<br>(20 Bar) |
|-----------|--------------------|-------------------------|---------------------------|--------|--------------------|
| 20        | 3.4                | 3052111                 | 3052109                   | 25     | 2.8                |
| 25        | 4.2                | 3052114                 | 3052112                   | 20     | 3.5                |
| 32        | 5.4                | 3052116                 | 3052115                   | 10     | 4.4                |
| 40        | 6.7                | 3052118                 | 3052117                   | 5      | 5.5                |
| 50        | 8.3                | 3085138                 | 3052119                   | 5      | 6.9                |
| 63        | 10.5               | 3085007                 | 3052120                   | 3      | 8.6                |
| 75        | 12.5               | 3085008                 | 3052121                   | 2      | 10.3               |
| 90        | 15.0               | 3085009                 | 3052122                   | 2      | 12.3               |
| 110       | 18.3               | 3085040                 | 3052123                   | 1      | 15.1               |
| 125       | 20.8               | 3085041                 | 3052124                   | 1      | 17.1               |

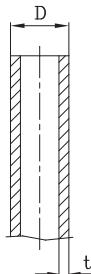


### Pilsa Plus Pipe (PP-RCT-4mt)

| D<br>(mm) | t (mm) | s 4<br>SDR 9<br>PN 22 | Bundle |
|-----------|--------|-----------------------|--------|
| 20        | 2,3    | 3065552               | 25     |
| 25        | 2,8    | 3065553               | 20     |
| 32        | 3,6    | 3065554               | 10     |
| 40        | 4,5    | 3065555               | 5      |
| 50        | 5,6    | 3065556               | 5      |
| 63        | 7,1    | 3065557               | 3      |
| 75        | 8,4    | 3065558               | 2      |
| 90        | 10,1   | 3065559               | 2      |
| 110       | 12,3   | 3065560               | 1      |
| 125       | 14     | 3065561               | 1      |
| 160       | 17,9   | 3085006               | 1      |
| 200       | 22,4   | -                     |        |

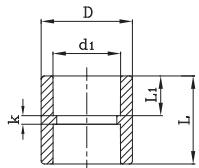
- upon request

### Pilsa Basalttherm Reinforced Pipe (PP-RCT- 4mt)



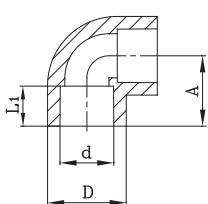
| D<br>(mm) | t (mm) | s 4<br>SDR 9<br>PN 22 | s 3,2<br>SDR 7,4<br>PN 25 | Bundle |
|-----------|--------|-----------------------|---------------------------|--------|
| 20        | 2.8    |                       | 3052409                   | 25     |
| 25        | 3.5    |                       | 3052410                   | 20     |
| 32        | 4.4    |                       | 3052411                   | 10     |
| 40        | 5.5    |                       | 3052412                   | 5      |
| 50        | 6.9    |                       | 3052413                   | 5      |
| 63        | 8.6    |                       | 3052414                   | 3      |
| 75        | 8.4    | 3052415               |                           | 2      |
| 90        | 10.1   | 3052416               |                           | 2      |
| 110       | 12.3   | 3052417               |                           | 1      |
| 125       | 14.0   | 3052418               |                           | 1      |

### Socket



| DN  | Sap Code | Bag | Box | d<br>(mm) | L1(min.)<br>(mm) | D<br>(mm) | L<br>(mm) | k<br>(mm) |
|-----|----------|-----|-----|-----------|------------------|-----------|-----------|-----------|
| 20  | 3040349  | 50  | 600 | 19,50     | 14,50            | 28        | 33        | 4         |
| 25  | 3040350  | 40  | 400 | 24,50     | 16,00            | 34        | 37        | 4         |
| 32  | 3040351  | 20  | 240 | 31,50     | 18,00            | 42,5      | 41        | 4         |
| 40  | 3040352  | 15  | 120 | 39,40     | 20,50            | 53        | 46        | 4,5       |
| 50  | 3040353  | 10  | 100 | 49,40     | 23,50            | 66        | 52        | 4,5       |
| 63  | 3040354  | 6   | 48  | 62,50     | 27,50            | 83        | 60        | 4,5       |
| 75  | 3040355  | 6   | 30  | 74,70     | 30,00            | 100       | 65        | 5         |
| 90  | 3040356  | 1   | 24  | 89,20     | 33,00            | 120       | 71,5      | 6         |
| 110 | 3040357  | 1   | 10  | 109,00    | 37,00            | 146       | 80        | 6         |
| 125 | 3040358  | 1   | 10  | 124,60    | 40,00            | 167       | 86        | 6         |

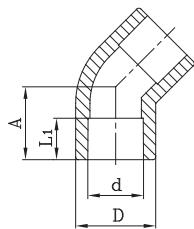
### Elbow (90°)



| DN  | Sap Code | Bag | Box | d<br>(mm) | L1(min.)<br>(mm) | D<br>(mm) | A<br>(mm) |
|-----|----------|-----|-----|-----------|------------------|-----------|-----------|
| 20  | 3040127  | 50  | 450 | 19,5      | 14,5             | 28        | 25,5      |
| 25  | 3040128  | 50  | 300 | 24,5      | 16               | 33        | 29,5      |
| 32  | 3040129  | 25  | 150 | 31,5      | 18               | 43,5      | 35        |
| 40  | 3040130  | 10  | 80  | 39,4      | 20,5             | 53        | 41,5      |
| 50  | 3040131  | 5   | 40  | 49,4      | 23,5             | 67        | 50        |
| 63  | 3040132  | 5   | 25  | 62,5      | 27,5             | 83,5      | 60        |
| 75  | 3040133  | 3   | 15  | 74,7      | 30               | 100       | 68        |
| 90  | 3040134  | 1   | 8   | 89,2      | 33               | 120       | 78,5      |
| 110 | 3040135  | 1   | 4   | 109       | 37               | 147       | 92,5      |
| 125 | 3040136  | 1   | 4   | 124,6     | 40               | 168       | 102       |



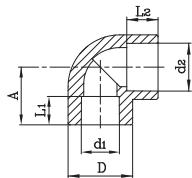
**Elbow (45°)**



| DN | Sap Code | Bag | Box | d<br>(mm) | L1(min.)<br>(mm) | D<br>(mm) | A<br>(mm) |
|----|----------|-----|-----|-----------|------------------|-----------|-----------|
| 20 | 3040119  | 50  | 400 | 19,5      | 14,5             | 26,5      | 20        |
| 25 | 3040120  | 50  | 250 | 24,5      | 16               | 33,5      | 22        |
| 32 | 3040121  | 20  | 120 | 31,5      | 18               | 43,5      | 32        |
| 40 | 3040122  | 10  | 100 | 39,4      | 20,5             | 52,5      | 31        |
| 50 | 3040123  | 8   | 48  | 49,4      | 23,5             | 68        | 35        |
| 63 | 3040124  | 4   | 24  | 62,5      | 27,5             | 84        | 42,5      |
| 75 | 3040125  | 3   | 18  | 74,7      | 30               | 100       | 47        |



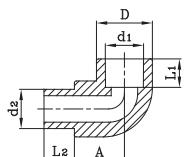
**Elbow with Reducer**



| DN    | Sap Code | Bag | Box | d1<br>(mm) | L1(min.)<br>(mm) | d2<br>(mm) | L2(min.) | D  | A    |
|-------|----------|-----|-----|------------|------------------|------------|----------|----|------|
| 25-20 | 3051268  | 30  | 300 | 19,5       | 14,5             | 25         | 16       | 33 | 29,5 |



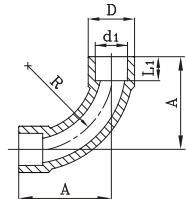
**Elbow (Female-Male) 90°**



| DN    | Sap Code | Bag | Box | d1<br>(mm) | L1(min.)<br>(mm) | d2<br>(mm) | L2(min.) | D<br>(mm) | A<br>(mm) |
|-------|----------|-----|-----|------------|------------------|------------|----------|-----------|-----------|
| 20    | 3040137  | 50  | 500 | 19,5       | 14,5             | 20         | 15       | 28,5      | 25        |
| 25    | 3040138  | 30  | 300 | 24,5       | 16               | 25         | 15,5     | 33,5      | 29,5      |
| 25/20 | 3040139  | 30  | 300 | 24,5       | 16               | 20         | 15,5     | 33        | 29,5      |

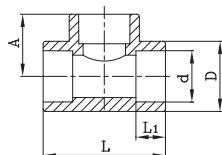


**Bend**



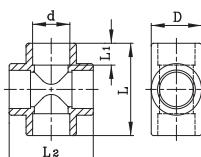
| DN | Sap Code | Bag | Box | d1<br>(mm) | L1(min.)<br>(mm) | D<br>(mm) | L2(min.) | L<br>(mm) |
|----|----------|-----|-----|------------|------------------|-----------|----------|-----------|
| 20 | 3051238  | 30  | 300 | 19,5       | 14,5             | 28        | 50,5     | 70        |
| 25 | 3085003  | 20  | 180 | 24,5       | 16               | 35        | 63,5     | 88        |

### Tee



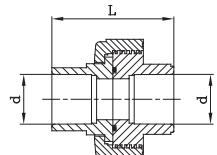
| DN  | Sap Code | Bag | Box | d<br>(mm) | L1(min.)<br>(mm) | D<br>(mm) | L<br>(mm) | A<br>(mm) |
|-----|----------|-----|-----|-----------|------------------|-----------|-----------|-----------|
| 20  | 3040177  | 30  | 240 | 19,5      | 14,5             | 27        | 51,5      | 26        |
| 25  | 3040178  | 25  | 150 | 24,5      | 16               | 33        | 63        | 30        |
| 32  | 3040179  | 15  | 90  | 31,5      | 18               | 43        | 72        | 36        |
| 40  | 3040180  | 5   | 50  | 39,4      | 20,5             | 53        | 85        | 43,5      |
| 50  | 3040181  | 4   | 32  | 49,4      | 23,5             | 66,5      | 100       | 50        |
| 63  | 3040182  | 3   | 18  | 62,5      | 27,5             | 84,5      | 119,5     | 60        |
| 75  | 3040183  | 2   | 12  | 74,7      | 30               | 100       | 130       | 73        |
| 90  | 3040184  | 1   | 6   | 89,2      | 33               | 120       | 158       | 79        |
| 110 | 3040185  | 1   | 4   | 109       | 37               | 146       | 186       | 93        |
| 125 | 3040186  | 1   | 3   | 124,6     | 40               | 167       | 208       | 103,5     |

### Cross Tee



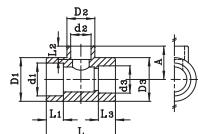
| DN | Sap Code | Bag | Box | d<br>(mm) | L1(min.)<br>(mm) | D<br>(mm) | L<br>(mm) | L2<br>(mm) |
|----|----------|-----|-----|-----------|------------------|-----------|-----------|------------|
| 20 | 3040109  | 25  | 200 | 19,5      | 14,5             | 26,5      | 51        | 51         |
| 25 | 3040110  | 15  | 150 | 24,5      | 16               | 33        | 60        | 60         |
| 32 | 3040111  | 10  | 90  | 31,5      | 18               | 42,5      | 70        | 70         |
| 40 | 3040112  | 5   | 50  | 39,4      | 20,5             | 53        | 84        | 84         |
| 50 | 3040113  | 3   | 24  | 49,4      | 23,5             | 66,5      | 103,5     | 103,5      |

### Manchon Union PN 10



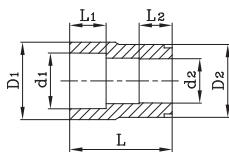
| DN | Sap Code | Bag | Box | d<br>(mm) | L<br>(mm) |
|----|----------|-----|-----|-----------|-----------|
| 20 | 3040389  | 15  | 180 | 19,5      | 41        |
| 25 | 3040390  | 10  | 120 | 24,5      | 51        |
| 32 | 3040391  | 5   | 60  | 31,5      | 63        |
| 40 | 3040392  | 5   | 40  | 39,4      | 71        |
| 50 | 3040393  | 4   | 32  | 49,4      | 74        |

### Unequal Tee



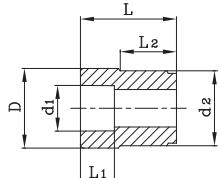
| D1         | D2      | D3 | Sap Code | Bag  | Box  | d1<br>(mm) | L1(min.)<br>(mm) | D1<br>(mm) | d2<br>(mm) | L2(min)<br>(mm) | D2<br>(mm) | d3<br>(mm) | L3(min)<br>(mm) | D3<br>(mm) | L<br>(mm) | A<br>(mm) |
|------------|---------|----|----------|------|------|------------|------------------|------------|------------|-----------------|------------|------------|-----------------|------------|-----------|-----------|
| 20x25x20   | 3040274 | 25 | 150      | 19,5 | 14,5 | 33         | 24,5             | 16         | 33,5       | 19,5            | 14,5       | 33         | 65              | 37,5       |           |           |
| 25x20x20   | 3040275 | 25 | 150      | 24,5 | 16   | 35         | 19,5             | 14,5       | 28         | 19,5            | 14,5       | 28         | 53              | 27,5       |           |           |
| 25x20x25   | 3040277 | 25 | 150      | 24,5 | 16   | 33         | 19,5             | 14,5       | 26,5       | 24,5            | 16         | 33         | 55              | 28,5       |           |           |
| 25x25x20   | 3040276 | 25 | 150      | 24,5 | 18   | 33,5       | 24,5             | 16         | 33,5       | 19,5            | 14,5       | 33,5       | 65              | 35,5       |           |           |
| 32x20x20   | 3040279 | 15 | 90       | 31,5 | 18   | 42,5       | 19,5             | 14,5       | 42,5       | 19,5            | 14,5       | 42,5       | 73,5            | 40,5       |           |           |
| 32x20x25   | 3040282 | 15 | 90       | 31,5 | 18   | 43         | 19,5             | 14,5       | 42,5       | 24,5            | 16         | 43         | 73,5            | 40,5       |           |           |
| 32x20x32   | 3040278 | 15 | 90       | 31,5 | 18   | 42,5       | 19,5             | 14,5       | 27         | 31,5            | 18         | 42,5       | 60              | 31,5       |           |           |
| 32x25x20   | 3040283 | 15 | 90       | 31,5 | 18   | 42,5       | 24,5             | 16         | 42,5       | 19,5            | 14,5       | 42,5       | 73,5            | 40         |           |           |
| 32x25x25   | 3040281 | 15 | 90       | 31,5 | 18   | 43         | 24,5             | 16         | 43         | 24,5            | 16         | 43         | 66              | 40         |           |           |
| 32x25x32   | 3040280 | 15 | 90       | 31,5 | 18   | 43         | 24,5             | 16         | 34         | 31,5            | 18         | 43         | 103             | 35         |           |           |
| 32x50x32   | 3040284 | 4  | 32       | 31,5 | 18   | 65         | 49,4             | 23,5       | 65         | 31,5            | 18         | 65         | 65,5            | 54,5       |           |           |
| 40x20x40   | 3040285 | 5  | 50       | 39,4 | 20,5 | 53         | 19,5             | 14,5       | 33         | 39,4            | 20,5       | 53         | 70              | 38,5       |           |           |
| 40x25x40   | 3040286 | 5  | 50       | 39,4 | 20,5 | 53         | 24,5             | 16         | 33         | 39,4            | 20,5       | 53         | 70              | 38,5       |           |           |
| 40x32x40   | 3040287 | 5  | 50       | 39,4 | 20,5 | 53         | 31,5             | 18         | 43         | 39,4            | 20,5       | 53         | 80              | 41         |           |           |
| 40x50x40   | 3040288 | 4  | 32       | 39,4 | 20,5 | 66         | 49,4             | 23,5       | 65,5       | 39,4            | 20,5       | 66         | 103             | 54,5       |           |           |
| 50x20x50   | 3040293 | 4  | 32       | 49,4 | 23,5 | 66,5       | 19,5             | 14,5       | 33         | 49,4            | 23,5       | 66,5       | 85              | 44         |           |           |
| 50x25x50   | 3051242 | 4  | 32       | 49,4 | 23,5 | 66,5       | 24,5             | 16         | 33         | 49,4            | 23,5       | 66,5       | 85              | 44         |           |           |
| 50x32x32   | 3040294 | 4  | 32       | 49,4 | 23,5 | 66,5       | 31,5             | 18         | 65,5       | 31,5            | 18         | 66,5       | 103             | 55,5       |           |           |
| 50x32x40   | 3040296 | 5  | 50       | 49,4 | 23,5 | 66         | 31,5             | 18         | 65,5       | 39,4            | 20,5       | 66         | 103             | 54,5       |           |           |
| 50x32x50   | 3040297 | 4  | 32       | 49,4 | 23,5 | 65         | 31,5             | 18         | 51         | 49,4            | 23,5       | 65         | 90              | 49,5       |           |           |
| 50x40x32   | 3040295 | 4  | 32       | 49,4 | 23,5 | 66,5       | 39,4             | 20,5       | 66         | 31,5            | 18         | 66,5       | 103             | 55,5       |           |           |
| 50x40x40   | 3040289 | 4  | 32       | 49,4 | 23,5 | 66         | 39,4             | 20,5       | 65,5       | 39,4            | 20,5       | 66         | 104             | 55,5       |           |           |
| 50x40x50   | 3040290 | 4  | 32       | 49,4 | 23,5 | 65         | 39,4             | 20,5       | 52         | 49,4            | 23,5       | 65         | 90              | 49,5       |           |           |
| 50x50x32   | 3040298 | 4  | 32       | 49,4 | 23,5 | 66         | 49,4             | 23,5       | 66         | 31,5            | 18         | 66         | 103,5           | 55         |           |           |
| 50x50x40   | 3040291 | 4  | 32       | 49,4 | 23,5 | 65,5       | 49,4             | 23,5       | 65         | 39,4            | 20,5       | 65,5       | 103,5           | 54,5       |           |           |
| 63x20x63   | 3040299 | 2  | 20       | 62,5 | 27,5 | 84         | 19,5             | 14,5       | 26,5       | 62,5            | 27,5       | 84         | 80              | 52         |           |           |
| 63x25x63   | 3040300 | 2  | 20       | 62,5 | 27,5 | 84         | 24,5             | 16         | 33         | 62,5            | 27,5       | 84         | 85              | 52         |           |           |
| 63x32x63   | 3040301 | 2  | 20       | 62,5 | 27,5 | 84         | 31,5             | 18         | 42,5       | 62,5            | 27,5       | 84         | 91              | 52         |           |           |
| 63x40x63   | 3040302 | 2  | 20       | 62,5 | 27,5 | 83,5       | 39,4             | 20,5       | 53         | 62,5            | 27,5       | 83,5       | 101             | 54         |           |           |
| 63x50x63   | 3040303 | 2  | 20       | 62,5 | 27,5 | 83,5       | 49,4             | 23,5       | 66         | 62,5            | 27,5       | 83,5       | 112             | 57         |           |           |
| 75x20x75   | 3040304 | 1  | 12       | 74,7 | 30   | 100        | 19,5             | 14,5       | 33         | 74,7            | 30         | 100        | 130             | 60         |           |           |
| 75x25x75   | 3040305 | 1  | 12       | 74,7 | 30   | 100        | 24,5             | 16         | 33         | 74,7            | 30         | 100        | 130             | 60         |           |           |
| 75x32x75   | 3040306 | 1  | 12       | 74,7 | 30   | 100        | 31,5             | 18         | 53         | 74,7            | 30         | 100        | 130             | 60         |           |           |
| 75x40x75   | 3040307 | 1  | 12       | 74,7 | 30   | 100        | 39,4             | 20,5       | 53         | 74,7            | 30         | 100        | 130             | 60         |           |           |
| 75x50x75   | 3040308 | 1  | 12       | 74,7 | 30   | 100        | 49,4             | 23,5       | 83,5       | 74,7            | 30         | 100        | 130             | 68         |           |           |
| 75x63x75   | 3040309 | 1  | 12       | 74,7 | 30   | 100        | 62,5             | 27,5       | 83,5       | 74,7            | 30         | 100        | 130             | 68         |           |           |
| 90x75x90   | 3040310 | 1  | 8        | 89,2 | 33   | 120        | 74,7             | 30         | 120        | 89,2            | 33         | 120        | 158             | 79         |           |           |
| 110x90x110 | 3040311 | 1  | 4        | 109  | 37   | 146        | 89,2             | 33         | 146        | 109             | 37         | 146        | 186             | 93         |           |           |

### Female-Female Reducer



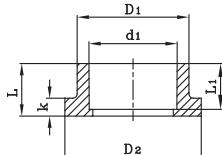
| DN    | Sap Code | Bag | Box | d1<br>(mm) | L1 (min.)<br>(mm) | d2<br>(mm) | L2 (min)<br>(mm) | D1<br>(mm) | D2<br>(mm) | L<br>(mm) |
|-------|----------|-----|-----|------------|-------------------|------------|------------------|------------|------------|-----------|
| 25/20 | 3040312  | 30  | 300 | 24,5       | 16                | 19,5       | 14,5             | 35         | 32,5       | 39        |
| 32/20 | 3051246  | 25  | 250 | 31,5       | 18                | 19,5       | 14,5             | 43         | 41         | 48,5      |
| 32/25 | 3040313  | 25  | 250 | 31,5       | 18                | 24,5       | 16               | 43         | 41         | 48,5      |

### Female-Male Reducer



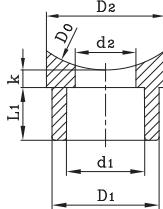
| DN      | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | d2<br>(mm) | L2(min.)<br>(mm) | D<br>(mm) | L<br>(mm) |
|---------|----------|-----|-----|------------|-----------------|------------|------------------|-----------|-----------|
| 25/20   | 3040315  | 40  | 560 | 19,5       | 14,5            | 25         | 18               | 29        | 39        |
| 32/20   | 3040317  | 30  | 300 | 19,5       | 14,5            | 32         | 13,5             | 35        | 39        |
| 32/25   | 3040316  | 30  | 300 | 24,5       | 16              | 32         | 15,5             | 35        | 39,5      |
| 40/20   | 3040318  | 30  | 240 | 19,5       | 14,5            | 40         | 25               | 30,5      | 47,5      |
| 40/25   | 3040319  | 30  | 240 | 24,5       | 16              | 40         | 24,5             | 35,5      | 48        |
| 40/32   | 3040320  | 20  | 200 | 31,5       | 18              | 40         | 27,5             | 42,5      | 47        |
| 50/20   | 3040321  | 20  | 200 | 19,5       | 14,5            | 50         | 23,5             | 29        | 48        |
| 50/25   | 3040322  | 25  | 200 | 24,5       | 16              | 50         | 23,5             | 34        | 49,5      |
| 50/32   | 3040323  | 15  | 150 | 31,5       | 18              | 50         | 23,5             | 42,5      | 47,5      |
| 50/40   | 3040324  | 10  | 120 | 39,4       | 20,5            | 50         | 24,5             | 53,5      | 48        |
| 63/25   | 3040325  | 10  | 120 | 24,5       | 16              | 63         | 28               | 34,5      | 56,5      |
| 63/32   | 3040326  | 10  | 120 | 31,5       | 18              | 63         | 28,5             | 43,5      | 57,5      |
| 63/40   | 3040327  | 5   | 80  | 39,4       | 20,5            | 63         | 28               | 63        | 53        |
| 63/50   | 3040328  | 5   | 60  | 49,4       | 23,5            | 63         | 28               | 67        | 53        |
| 75/50   | 3040329  | 5   | 50  | 49,4       | 23,5            | 75         | 31               | 75,5      | 61,5      |
| 75/63   | 3040330  | 5   | 40  | 62,5       | 27,5            | 75         | 26               | 84,5      | 67        |
| 90/63   | 3040331  | 4   | 36  | 62,5       | 27,5            | 90         | 28               | 91        | 76,5      |
| 90/75   | 3040332  | 2   | 24  | 74,7       | 30              | 90         | 33               | 98        | 81,5      |
| 110/63  | 3040333  | 1   | 18  | 62,5       | 27,5            | 110        | 32,5             | 111       | 88        |
| 110/75  | 3040334  | 1   | 18  | 74,7       | 30              | 110        | 32,5             | 111       | 91,5      |
| 110/90  | 3040335  | 1   | 18  | 89,2       | 33              | 110        | 32,5             | 119       | 93,5      |
| 125/110 | 3040336  | 1   | 13  | 109        | 37w             | 125        | 37               | 147       | 102       |

### Flange Adaptor

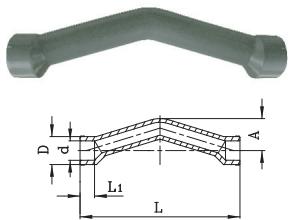


| DN  | Sap Code | Bag | Box | d<br>(mm) | L1(min.)<br>(mm) | D1<br>(mm) | D2<br>(mm) | L<br>(mm) | k<br>(mm) |
|-----|----------|-----|-----|-----------|------------------|------------|------------|-----------|-----------|
| 40  | 3040196  | 25  | 250 | 39,4      | 20,5             | 50,5       | 62         | 24        | 8,5       |
| 50  | 3040197  | 15  | 150 | 49,4      | 23,5             | 61,5       | 73,5       | 27        | 8,5       |
| 63  | 3040198  | 10  | 80  | 62,5      | 27,5             | 77         | 90,5       | 31,5      | 8         |
| 75  | 3040199  | 4   | 36  | 74,7      | 30               | 90,5       | 106        | 38        | 16        |
| 90  | 3040200  | 4   | 36  | 89,2      | 33               | 109        | 124,5      | 42,5      | 18        |
| 110 | 3040201  | 2   | 20  | 109       | 37               | 132        | 150,5      | 50        | 21        |
| 125 | 3040202  | 1   | 12  | 124,6     | 40               | 164        | 185        | 62        | 20        |

### Saddle

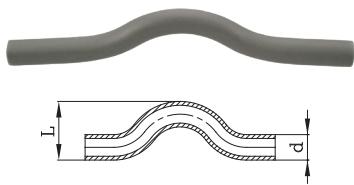


| DN     | Sap Code | Bag | Box | d0<br>(mm) | d1<br>(mm) | L1(min.)<br>(mm) | d2<br>(mm) | D1<br>(mm) | D2<br>(mm) | k<br>(mm) |
|--------|----------|-----|-----|------------|------------|------------------|------------|------------|------------|-----------|
| 63/20  | 3040337  | 50  | 600 | 63         | 19,5       | 14,5             | 17         | 28,5       | 37         | 6         |
| 63/25  | 3040338  | 50  | 600 | 75         | 19,5       | 14,5             | 17         | 28,5       | 37         | 6         |
| 75/20  | 3040339  | 50  | 600 | 90         | 19,5       | 14,5             | 17         | 28,5       | 37         | 6         |
| 75/25  | 3040340  | 50  | 600 | 110        | 19,5       | 14,5             | 17         | 28,5       | 37         | 6         |
| 90/20  | 3040341  | 50  | 600 | 63         | 24,5       | 16               | 19         | 33,5       | 37,5       | 6         |
| 90/25  | 3040342  | 50  | 600 | 75         | 24,5       | 16               | 19         | 33,5       | 37,5       | 6         |
| 110/20 | 3040343  | 50  | 600 | 90         | 24,5       | 16               | 19         | 33,5       | 37,5       | 6         |
| 110/25 | 3040344  | 50  | 600 | 110        | 24,5       | 16               | 19         | 33,5       | 37,5       | 6         |



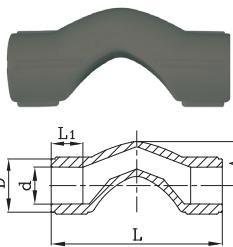
#### Crossover Bridge

| DN | Sap Code | Bag | Box | d1<br>(mm) | L1(min.)<br>(mm) | D<br>(mm) | L<br>(mm) | A<br>(mm) |
|----|----------|-----|-----|------------|------------------|-----------|-----------|-----------|
| 20 | 3051244  | 15  | 150 | 19,5       | 14,5             | 28,5      | 160       | 33        |
| 25 | 3051245  | 10  | 100 | 24,5       | 16               | 33        | 194       | 40        |
| 32 | 4056717  | 4   | 56  | 31,5       | 18               | 46        | 216       | 49        |



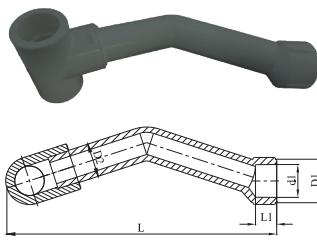
#### Bridge

| DN | Sap Code | Bag | Box | d<br>(mm) | L<br>(mm) |
|----|----------|-----|-----|-----------|-----------|
| 20 | 3040115  | 15  | 135 | 20        | 45        |
| 25 | 3040116  | 10  | 90  | 25        | 55        |
| 32 | 3040117  | 5   | 45  | 32        | 69        |
| 40 | 3040118  | 3   | 27  | 40        | 85        |



#### Short Bridge

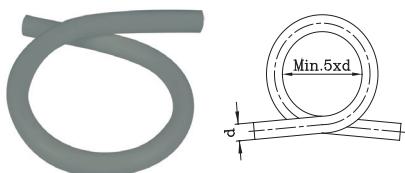
| DN | Sap Code | Bag | Box | d<br>(mm) | L1(min.)<br>(mm) | D<br>(mm) | A<br>(mm) | L<br>(mm) |
|----|----------|-----|-----|-----------|------------------|-----------|-----------|-----------|
| 20 | 4047832  | 30  | 240 | 19,5      | 14,5             | 28        | 23        | 90        |
| 25 | 4047833  | 25  | 150 | 24,5      | 16               | 33,5      | 31        | 96        |



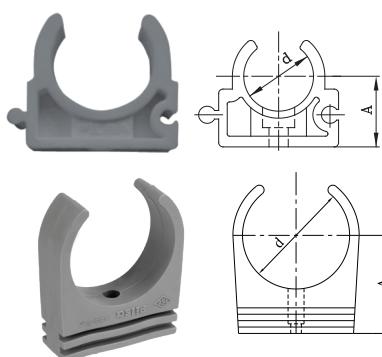
#### Tee w/ V Type Bridge

| DN       | Sap Code | Bag | Box | d1<br>(mm) | L1(min.)<br>(mm) | D1<br>(mm) | D2<br>(mm) | L<br>(mm) |
|----------|----------|-----|-----|------------|------------------|------------|------------|-----------|
| 20/20/20 | 3075009  | 10  | 100 | 19,5       | 14,5             | 28         | 20         | 160       |
| 25/25/25 | 3075010  | 10  | 100 | 24,5       | 16               | 32,5       | 25         | 203       |
| 25/20/25 | 3075011  | 5   | 50  | 19,5       | 14,5             | 28         | 20         | 165       |
| 32/25/32 | 3075012  | 5   | 50  | 24,5       | 16               | 32,5       | 25         | 212       |

#### Omega

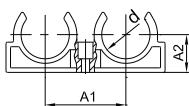


| DN | Sap Code | Bag | Box | d<br>(mm) |
|----|----------|-----|-----|-----------|
| 20 | 3040105  | 5   | 25  | 20        |
| 25 | 3040106  | 3   | 15  | 25        |
| 32 | 3040107  | 1   | 8   | 32        |
| 40 | 3040108  | 1   | 4   | 40        |



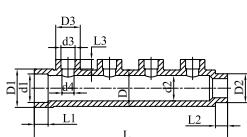
#### Clips

| DN | Sap Code | Bag | Box  | d<br>(mm) | A<br>(mm) |
|----|----------|-----|------|-----------|-----------|
| 20 | 3040232  | 100 | 1200 | 20,5      | 19        |
| 25 | 3040233  | 80  | 960  | 25,5      | 22        |
| 32 | 3040234  | 50  | 500  | 32,5      | 25        |
| 40 | 3040235  | 40  | 320  | 40,5      | 29        |
| 50 | 3040236  | 25  | 200  | 48,5      | 44        |



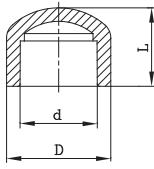
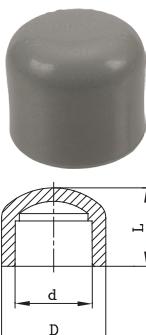
#### Double Clips

| DN | Sap Code | Bag | Box | d<br>(mm) | A1<br>(mm) | A2<br>(mm) |
|----|----------|-----|-----|-----------|------------|------------|
| 20 | 3040237  | 50  | 500 | 20        | 38         | 17,5       |
| 25 | 3040238  | 40  | 320 | 25        | 44,5       | 19,5       |
| 32 | 3040239  | 25  | 200 | 32        | 53,5       | 25         |



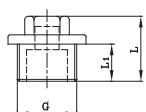
#### Manifold

| DN    | Sap Code | d1<br>(mm) | L1<br>(mm) | D1<br>(mm) | D2<br>(mm) | L2<br>(mm) | d2<br>(mm) | d3<br>(mm) | D3<br>(mm) | L3<br>(mm) | d4<br>(mm) | D<br>(mm) | L<br>(mm) |
|-------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|-----------|
| 50x25 | 3081246  | 49,4       | 23,5       | 66,5       | 50         | 21         | 44         | 24,5       | 42,5       | 16,0       | 21         | 63        | 335       |
| 50x32 | 3081550  | 49,4       | 23,5       | 66,5       | 50         | 21         | 44         | 31,5       | 42,5       | 18,0       | 28         | 63        | 335       |



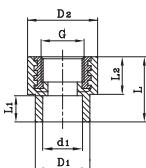
#### End Cap

| DN  | Sap Code | Bag | Box | d<br>(mm) | D<br>(mm) | L<br>(mm) |
|-----|----------|-----|-----|-----------|-----------|-----------|
| 20  | 3040167  | 100 | 800 | 19,5      | 28,5      | 25,5      |
| 25  | 3040168  | 80  | 640 | 24,5      | 34,5      | 29        |
| 32  | 3040169  | 50  | 400 | 31,5      | 43        | 32        |
| 40  | 3040170  | 25  | 200 | 39,4      | 53,5      | 37,5      |
| 50  | 3040171  | 10  | 100 | 49,4      | 67        | 43,5      |
| 63  | 3040172  | 10  | 80  | 62,5      | 85        | 52        |
| 75  | 3040173  | 6   | 48  | 74,7      | 100,5     | 58        |
| 90  | 3040174  | 4   | 32  | 89,2      | 121       | 64        |
| 110 | 3040175  | 2   | 16  | 109       | 146,5     | 71,5      |



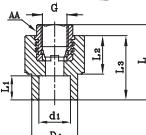
#### Male Threaded End Cap

| DN     | Sap Code | Bag | Box  | L1<br>(mm) | L<br>(mm) | G<br>(mm) |
|--------|----------|-----|------|------------|-----------|-----------|
| 20x1/2 | 3040205  | 100 | 1000 | 11         | 34        | 1/2"      |
| 25x3/4 | 3040206  | 80  | 640  | 11         | 31        | 3/4"      |
| 32x1   | 3040207  | 50  | 400  | 20         | 40        | 1"        |



#### Female Threaded Adaptor

| DN     | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | D2<br>(mm) | L2<br>(mm) | L<br>(mm) | G<br>(mm) |
|--------|----------|-----|-----|------------|-----------------|------------|------------|------------|-----------|-----------|
| 20x1/2 | 3040024  | 20  | 320 | 19,5       | 14,5            | 28,5       | 38,5       | 24         | 40,5      | 1/2"      |
| 20x3/4 | 3040025  | 20  | 240 | 19,5       | 14,5            | 29         | 42,5       | 24         | 40        | 3/4"      |
| 25x1/2 | 3040026  | 25  | 250 | 24,5       | 16              | 33,5       | 38         | 24         | 40,5      | 1/2"      |
| 25x3/4 | 3040027  | 20  | 280 | 24,5       | 16              | 33         | 42,5       | 24         | 40,5      | 3/4"      |
| 32x3/4 | 3040028  | 10  | 120 | 31,5       | 18              | 43         | 45,5       | 24,5       | 44        | 3/4"      |
| 32x1   | 3040049  | 10  | 120 | 31,5       | 18              | 43         | 53         | 28         | 47,5      | 1"        |

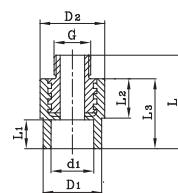


#### Female Threaded Adaptor (Hexagonal Shaped)

| DN       | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | L2<br>(mm) | L3<br>(mm) | L<br>(mm) | G<br>(mm) |
|----------|----------|-----|-----|------------|-----------------|------------|------------|------------|-----------|-----------|
| 40x1 1/4 | 3040050  | 10  | 40  | 39,4       | 20,5            | 54         | 25,5       | 47         | 61        | 1-1/4"    |
| 50x1 1/2 | 3040051  | 4   | 24  | 49,4       | 23,5            | 68         | 29         | 53,5       | 67,5      | 1-1/2"    |
| 63x2     | 3040052  | 2   | 14  | 62,5       | 27,5            | 84         | 28,5       | 55         | 73        | 2"        |
| 75x2 1/2 | 3040053  | 2   | 12  | 74,7       | 30              | 100        | 30         | 59,5       | 78        | 2-1/2"    |
| 90x3     | 3040054  | 1   | 5   | 89,2       | 33              | 120,5      | 44         | 75,5       | 92        | 3"        |
| 110x4    | 3040055  | 1   | 4   | 109        | 37              | 147        | 48         | 84         | 102       | 4"        |



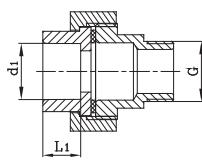
### Male Threaded Adaptor



| DN     | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | D2<br>(mm) | L<br>(mm) | L2<br>(mm) | L3<br>(mm) | G<br>(mm) |
|--------|----------|-----|-----|------------|-----------------|------------|------------|-----------|------------|------------|-----------|
| 20x1/2 | 3040062  | 25  | 250 | 19,5       | 14,5            | 28,5       | 35         | 53        | 24         | 40         | 1/2"      |
| 20x3/4 | 3040063  | 20  | 200 | 19,5       | 14,5            | 29         | 42,5       | 53        | 23,5       | 40         | 3/4"      |
| 25x1/2 | 3040064  | 15  | 240 | 24,5       | 16              | 34         | 39         | 53        | 23,5       | 40         | 1/2"      |
| 25x3/4 | 3040065  | 15  | 150 | 24,5       | 16              | 33         | 42         | 53        | 24         | 40         | 3/4"      |
| 32x3/4 | 3040066  | 10  | 100 | 31,5       | 18              | 43         | 45         | 57        | 24,5       | 44         | 3/4"      |
| 32x1   | 3040067  | 10  | 100 | 31,5       | 18              | 43         | 52,5       | 62,5      | 28         | 47         | 1"        |



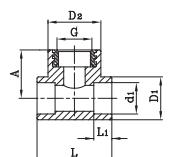
### Male Threaded Adaptor (Hexagonal Shaped)



| DN        | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | L2<br>(mm) | L3<br>(mm) | L<br>(mm) | G<br>(mm) |
|-----------|----------|-----|-----|------------|-----------------|------------|------------|------------|-----------|-----------|
| 40x1 1/4" | 3040068  | 5   | 25  | 39,4       | 20,5            | 54         | 25         | 47         | 81        | 1-1/4"    |
| 50x1 1/2" | 3040069  | 2   | 16  | 49,4       | 23,5            | 68         | 29         | 53,5       | 87,5      | 1-1/2"    |
| 63x2"     | 3040070  | 1   | 10  | 62,5       | 27,5            | 84         | 28,5       | 55         | 98        | 2"        |
| 75x2 1/2" | 3040071  | 1   | 6   | 74,7       | 30              | 100        | 30         | 59,5       | 105       | 2-1/2"    |
| 90x3"     | 3040072  | 1   | 5   | 89,2       | 33              | 120,5      | 43,5       | 76         | 118       | 3"        |
| 110x4"    | 3040073  | 1   | 3   | 109        | 37              | 147        | 48         | 84,5       | 129,5     | 4"        |



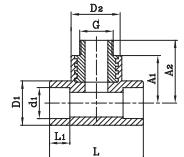
### Female Threaded Tee



| DN     | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | D2<br>(mm) | A<br>(mm) | L<br>(mm) | G<br>(mm) |
|--------|----------|-----|-----|------------|-----------------|------------|------------|-----------|-----------|-----------|
| 20x1/2 | 3040187  | 25  | 200 | 19,5       | 14,5            | 27         | 38,5       | 35        | 51,5      | 1/2"      |
| 20x3/4 | 3040188  | 20  | 140 | 19,5       | 14,5            | 28,5       | 43         | 36        | 60,5      | 3/4"      |
| 25x1/2 | 3040189  | 20  | 120 | 24,5       | 16              | 33         | 38         | 37        | 60        | 1/2"      |
| 25x3/4 | 3040190  | 15  | 120 | 24,5       | 16              | 35         | 43         | 37,5      | 60        | 3/4"      |
| 32x1   | 3040191  | 10  | 70  | 31,5       | 16              | 43         | 53,5       | 43        | 70        | 1"        |



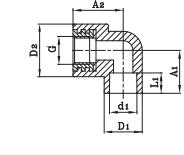
### Male Threaded Tee



| DN     | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | D2<br>(mm) | A1<br>(mm) | A2<br>(mm) | L<br>(mm) | G<br>(mm) |
|--------|----------|-----|-----|------------|-----------------|------------|------------|------------|------------|-----------|-----------|
| 20x1/2 | 3040208  | 15  | 150 | 19,5       | 14,5            | 27         | 38,5       | 35         | 47,5       | 51,5      | 1/2"      |
| 20x3/4 | 3040209  | 10  | 130 | 19,5       | 14,5            | 28,5       | 43         | 36,5       | 49,5       | 60,5      | 3/4"      |
| 25x1/2 | 3040210  | 10  | 100 | 24,5       | 16              | 33         | 38         | 37         | 50,5       | 60        | 1/2"      |
| 25x3/4 | 3040211  | 10  | 100 | 24,5       | 16              | 35         | 43         | 37,5       | 50,5       | 60        | 3/4"      |
| 32x1   | 3040212  | 10  | 60  | 31,5       | 16              | 43         | 53,5       | 43         | 58         | 70        | 1"        |



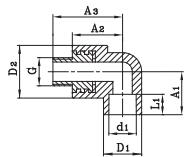
### Female Threaded Elbow



| DN     | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | D2<br>(mm) | A1<br>(mm) | A2<br>(mm) | G<br>(mm) |
|--------|----------|-----|-----|------------|-----------------|------------|------------|------------|------------|-----------|
| 20x1/2 | 3040142  | 25  | 250 | 19,5       | 14,5            | 28,5       | 38,5       | 31,5       | 36         | 1/2"      |
| 20x3/4 | 3040143  | 20  | 280 | 19,5       | 14,5            | 29         | 40         | 31         | 35,5       | 3/4"      |
| 25x1/2 | 3040144  | 20  | 160 | 24,5       | 16              | 33,5       | 38,5       | 32         | 38         | 1/2"      |
| 25x3/4 | 3040145  | 15  | 180 | 24,5       | 16              | 33,5       | 43         | 32         | 40         | 3/4"      |
| 32x3/4 | 3040146  | 10  | 100 | 31,5       | 18              | 44         | 57,5       | 34         | 45         | 3/4"      |
| 32x1   | 3041449  | 10  | 100 | 31,5       | 18              | 43,5       | 54         | 34         | 45         | 1"        |



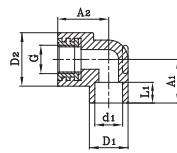
#### Male Threaded Elbow



| DN     | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | D2<br>(mm) | A1<br>(mm) | A2<br>(mm) | A3<br>(mm) | G<br>(mm) |
|--------|----------|-----|-----|------------|-----------------|------------|------------|------------|------------|------------|-----------|
| 20x1/2 | 3040154  | 25  | 200 | 19,5       | 14,5            | 28,5       | 38,5       | 31,5       | 36         | 49         | 1/2"      |
| 20x3/4 | 3040155  | 10  | 180 | 19,5       | 14,5            | 29         | 40         | 31         | 36         | 48         | 3/4"      |
| 25x1/2 | 3040156  | 10  | 140 | 24,5       | 16              | 33,5       | 38,5       | 32         | 38         | 51         | 1/2"      |
| 25x3/4 | 3040157  | 20  | 160 | 24,5       | 16              | 33,5       | 43         | 32         | 40         | 53         | 3/4"      |
| 32x3/4 | 3051239  | 10  | 80  | 31,5       | 18              | 43,5       | 57,5       | 34,5       | 45         | 58         | 3/4"      |
| 32x1   | 3040158  | 10  | 80  | 31,5       | 18              | 43,5       | 54         | 34,5       | 45         | 62         | 1"        |



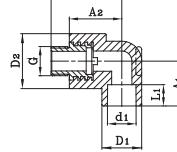
#### Underplaster Female Elbow



| DN | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | D2<br>(mm) | A1<br>(mm) | A2<br>(mm) | G<br>(mm) |
|----|----------|-----|-----|------------|-----------------|------------|------------|------------|------------|-----------|
| 20 | 3040384  | 20  | 200 | 19,5       | 14,5            | 28         | 38,5       | 31         | 35         | 1/2"      |
| 25 | 3040385  | 15  | 180 | 24,5       | 16              | 33         | 38,5       | 31,5       | 36         | 1/2"      |



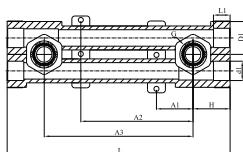
#### Underplaster Male Elbow



| DN | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | D2<br>(mm) | A1<br>(mm) | A2<br>(mm) | A3<br>(mm) | G    |
|----|----------|-----|-----|------------|-----------------|------------|------------|------------|------------|------------|------|
| 20 | 3040387  | 15  | 180 | 19,5       | 14,5            | 28         | 38,5       | 31         | 35         | 48         | 1/2" |
| 25 | 3040388  | 10  | 180 | 24,5       | 16              | 33         | 38,5       | 31         | 36         | 49         | 1/2" |



#### Adjustable Underplaster Female Elbow

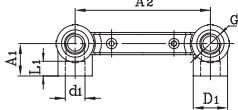


| DN     | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | A1<br>(mm) | A2<br>(mm) | A3<br>(mm) | L<br>(mm) | H<br>(mm) | G<br>(mm) |
|--------|----------|-----|-----|------------|-----------------|------------|------------|------------|------------|-----------|-----------|-----------|
| 20x1/2 | 3040081  | 3   | 36  | 19,5       | 14,5            | 33         | 37         | 113        | 150        | 224       | 38        | 1/2"      |
| 25x1/2 | 4064856  | 3   | 36  | 24,5       | 16,5            | 33         | 37         | 113        | 150        | 224       | 38        | 1/2"      |

#### Double Stable Underplaster Female Elbow

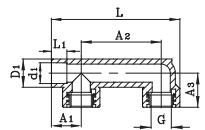


| DN     | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1 | A1 | A2  | G    |
|--------|----------|-----|-----|------------|-----------------|----|----|-----|------|
| 20x1/2 | 4047838  | 5   | 60  | 19,5       | 14,5            | 34 | 32 | 150 | 1/2" |
| 25x1/2 | 4047839  | 5   | 60  | 24,5       | 16              | 34 | 32 | 150 | 1/2" |





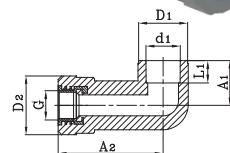
### Bide Nozzle Part Female



| DN     | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | A1<br>(mm) | A2<br>(mm) | A3<br>(mm) | L<br>(mm) | G<br>(mm) |
|--------|----------|-----|-----|------------|-----------------|------------|------------|------------|------------|-----------|-----------|
| 20x1/2 | 3051266  | 10  | 60  | 19,5       | 14,5            | 27         | 28,5       | 90         | 32         | 136       | 1/2"      |



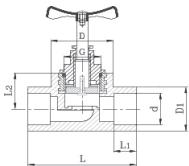
### Elbow Long



| DN     | Sap Code | Bag | Box | d1   | L1(min.)<br>(mm) | D1<br>(mm) | D2<br>(mm) | A1<br>(mm) | A2<br>(mm) | G<br>(mm) |
|--------|----------|-----|-----|------|------------------|------------|------------|------------|------------|-----------|
| 25x1/2 | 4049357  | 25  | 150 | 24,5 | 16               | 35         | 42         | 32         | 75         | 1/2"      |



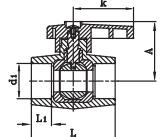
### Valve



| DN | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | D<br>(mm) | A<br>(mm) | L<br>(mm) | G<br>(mm) |
|----|----------|-----|-----|------------|-----------------|------------|-----------|-----------|-----------|-----------|
| 20 | 3078894  | 5   | 70  | 19,5       | 14,5            | 28         | 38        | 26        | 72        | 1/2"      |
| 25 | 3078897  | 5   | 70  | 24,5       | 16              | 33         | 42        | 30        | 77        | 3/4"      |
| 32 | 3078920  | 3   | 42  | 31,5       | 18              | 42,5       | 53        | 39        | 80        | 1"        |
| 40 | 3040292  | 3   | 30  | 39,4       | 20,5            | 54         | 64        | 43        | 111       | 1-1/4"    |



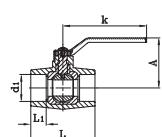
### Ball Valve



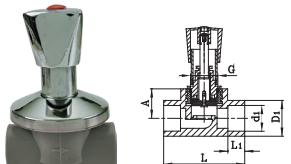
| DN | Sap Code | Bag | Box | d<br>(mm) | L1(min)<br>(mm) | A<br>(mm) | k<br>(mm) | L<br>(mm) |
|----|----------|-----|-----|-----------|-----------------|-----------|-----------|-----------|
| 20 | 3079033  | 5   | 120 | 19,5      | 14,5            | 50        | 56        | 68        |
| 25 | 3079034  | 5   | 120 | 24,5      | 16              | 50        | 56        | 68        |
| 32 | 3079035  | 5   | 80  | 31,5      | 18              | 54        | 56        | 75        |



|    |         |   |    |      |      |     |     |     |
|----|---------|---|----|------|------|-----|-----|-----|
| 40 | 3070085 | 4 | 48 | 39,4 | 20,5 | 71  | 119 | 89  |
| 50 | 3070086 | 2 | 28 | 49,4 | 23,5 | 78  | 119 | 12  |
| 63 | 3070087 | 1 | 15 | 62,5 | 27,5 | 90  | 157 | 128 |
| 75 | 3070088 | 1 | 12 | 74,7 | 30   | 100 | 157 | 148 |

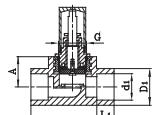


### Chrome Valve



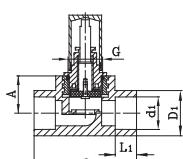
| DN | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | A<br>(mm) | L<br>(mm) | G<br>(mm) |
|----|----------|-----|-----|------------|-----------------|------------|-----------|-----------|-----------|
| 20 | 3072159  | 1   | 60  | 19,5       | 14,5            | 28,5       | 26,5      | 72        | 3/4"      |
| 25 | 3040102  | 1   | 60  | 24,5       | 16              | 33,5       | 30        | 77        | 3/4"      |
| 32 | 3040103  | 1   | 50  | 31,5       | 18              | 42,5       | 39        | 80        | 1"        |

### Valve Round Cap



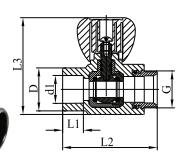
| DN | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | A<br>(mm) | L<br>(mm) | G<br>(mm) |
|----|----------|-----|-----|------------|-----------------|------------|-----------|-----------|-----------|
| 20 | 3072165  | 1   | 60  | 19,5       | 14,5            | 28,5       | 26,5      | 72        | 3/4"      |
| 25 | 3052748  | 1   | 60  | 24,5       | 16              | 33,5       | 30        | 77        | 374"      |
| 32 | 3052749  | 1   | 50  | 31,5       | 18              | 43         | 38,5      | 80,5      | 1"        |

### Decorative Valve



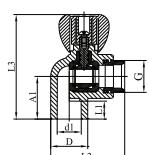
| DN | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | A<br>(mm) | L<br>(mm) | G<br>(mm) |
|----|----------|-----|-----|------------|-----------------|------------|-----------|-----------|-----------|
| 20 | 3072162  | 1   | 60  | 19,5       | 14,5            | 28,5       | 26,5      | 72        | 3/4"      |
| 25 | 3051254  | 1   | 60  | 24,5       | 16              | 33,5       | 30        | 77        | 3/4"      |
| 32 | 3051255  | 1   | 50  | 31,5       | 18              | 42,5       | 39        | 80        | 1"        |

### Radiator Valve Straight



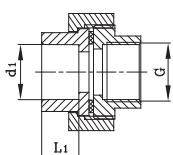
| DN | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D<br>(mm) | L2<br>(mm) | L3<br>(mm) | G<br>(mm) |
|----|----------|-----|-----|------------|-----------------|-----------|------------|------------|-----------|
| 20 | 4047847  | 5   | 80  | 19,5       | 14,5            | 30        | 66         | 68         | 3/4"      |

### Radiator Valve Elbow

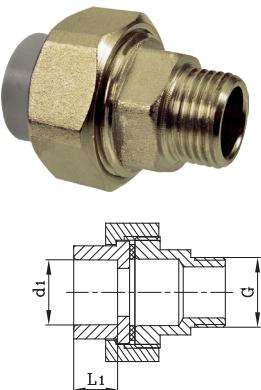


| DN | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D<br>(mm) | A1<br>(mm) | L2<br>(mm) | L3<br>(mm) | G<br>(mm) |
|----|----------|-----|-----|------------|-----------------|-----------|------------|------------|------------|-----------|
| 20 | 4047846  | 5   | 80  | 19,5       | 14,5            | 30        | 34,5       | 60         | 85         | 3/4"      |

### Metal Female Threaded Union (Hexagonal Shaped)

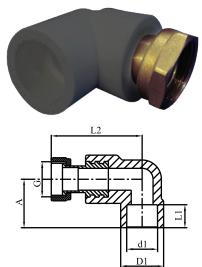


| DN               | Sap Code | Bag | Box | d<br>(mm) | L1(min.)<br>(mm) | G<br>(mm) |
|------------------|----------|-----|-----|-----------|------------------|-----------|
| 20x1/2"          | 3040217  | 10  | 120 | 19,5      | 14,5             | 1/2"      |
| 25x3/4"          | 3040218  | 10  | 80  | 24,5      | 16               | 3/4"      |
| 32x3/4"          | 3040219  | 5   | 60  | 31,5      | 18               | 3/4"      |
| 32x1"            | 3040220  | 5   | 60  | 31,5      | 18               | 3/4"      |
| 40x1 1/4" - PN16 | 3040221  | 2   | 24  | 39,4      | 20,5             | 1-1/4"    |
| 50x1 1/2" - PN16 | 3040222  | 2   | 24  | 49,4      | 23,5             | 1-1/2"    |
| 63x2"            | 3040223  | 2   | 18  | 62,5      | 27,5             | 2"        |



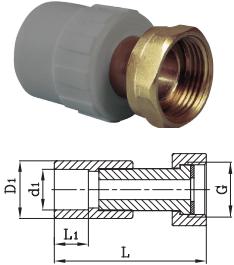
#### Metal Male Threaded Union (Hexagonal Shaped)

| DN               | Sap Code | Bag | Box | d<br>(mm) | L1(min.)<br>(mm) | G<br>(mm) |
|------------------|----------|-----|-----|-----------|------------------|-----------|
| 20x1/2"          | 3040224  | 10  | 120 | 19,5      | 14,5             | 1/2"      |
| 25x3/4"          | 3040225  | 10  | 80  | 24,5      | 16               | 3/4"      |
| 32x3/4"          | 3040226  | 5   | 50  | 31,5      | 18               | 3/4"      |
| 32x1"            | 3040227  | 5   | 50  | 31,5      | 18               | 1"        |
| 40x1 1/4" - PN16 | 3040228  | 2   | 24  | 39,4      | 20,5             | 1-1/4"    |
| 50x1 1/2" - PN16 | 3040229  | 2   | 20  | 49,4      | 23,5             | 1-1/2"    |
| 63x2"            | 3040230  | 2   | 16  | 62,5      | 27,5             | 2"        |



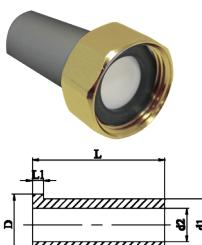
#### Shifting Elbow with Metal Transition

| DN     | Sap Code | Bag | Box | d1<br>(mm) | L1(min)<br>(mm) | D1<br>(mm) | A1<br>(mm) | L2<br>(mm) | G<br>(mm) |
|--------|----------|-----|-----|------------|-----------------|------------|------------|------------|-----------|
| 20x1/2 | 3040164  | 30  | 300 | 19,5       | 14,5            | 28,5       | 30         | 45         | 1/2"      |
| 25x3/4 | 3040165  | 25  | 250 | 24,5       | 16              | 33,5       | 33         | 53         | 3/4"      |



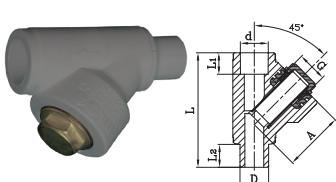
#### Shifting Union with Metal Transition

| DN     | Sap Code | Bag | Box | d1<br>(mm) | L1 (min)<br>(mm) | D1<br>(mm) | L<br>(mm) | G<br>(mm) |
|--------|----------|-----|-----|------------|------------------|------------|-----------|-----------|
| 20x1/2 | 4047821  | 30  | 300 | 19,5       | 14,5             | 28,5       | 57        | 1/2"      |
| 20x3/4 | 4047822  | 25  | 250 | 19,5       | 14,5             | 29         | 59        | 3/4"      |
| 25x1/2 | 4047823  | 25  | 250 | 24,5       | 16               | 33,5       | 59        | 1/2"      |
| 25x3/4 | 4047824  | 25  | 250 | 24,5       | 16               | 33         | 59        | 3/4"      |
| 25x1   | 4065369  | 20  | 200 | 24,5       | 16               | 42,5       | 72        | 1"        |



#### Shifting Union With Plastic Transition

| DN   | Sap Code | d1<br>(mm) | D2<br>(mm) | D<br>(mm) | L<br>(mm) | L1<br>(mm) |
|------|----------|------------|------------|-----------|-----------|------------|
| 25x1 | 3081758  | 25,0       | 16,2       | 29,8      | 64,5      | 5,4        |



#### Strainer Y with Filter

| DN     | Sap Codes | Bag | Box | d1<br>(mm) | L1 (min)<br>(mm) | D<br>(mm) | D2<br>(mm) | L<br>(mm) | G<br>(mm) |
|--------|-----------|-----|-----|------------|------------------|-----------|------------|-----------|-----------|
| 20x1/2 | 3040203   | 20  | 200 | 19,5       | 14,5             | 30        | 41         | 80        | 1/2"      |
| 25x3/4 | 3040204   | 10  | 120 | 24,5       | 16               | 35        | 46         | 101,5     | 3/4"      |



### Welding Head

| DN  | Sap Code | Box |
|-----|----------|-----|
| 20  | 3033427  | 50  |
| 25  | 3033428  | 50  |
| 32  | 3033429  | 50  |
| 40  | 3033430  | 50  |
| 50  | 3033431  | 50  |
| 63  | 3033432  | 30  |
| 75  | 3033433  | 30  |
| 90  | 3033434  | 30  |
| 110 | 3033435  | 20  |
| 125 | 3033436  | 10  |



### Cutter

| DN       | Sap Code | Box |
|----------|----------|-----|
| 20-25-32 | 3033042  | 30  |
| 40-63    | 4047816  | 20  |



### Welding Machine Set

| DN     | Sap Code | Box |
|--------|----------|-----|
| 16-40  | 3033236  | 5   |
| 50-110 | 3040363  | 1   |

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