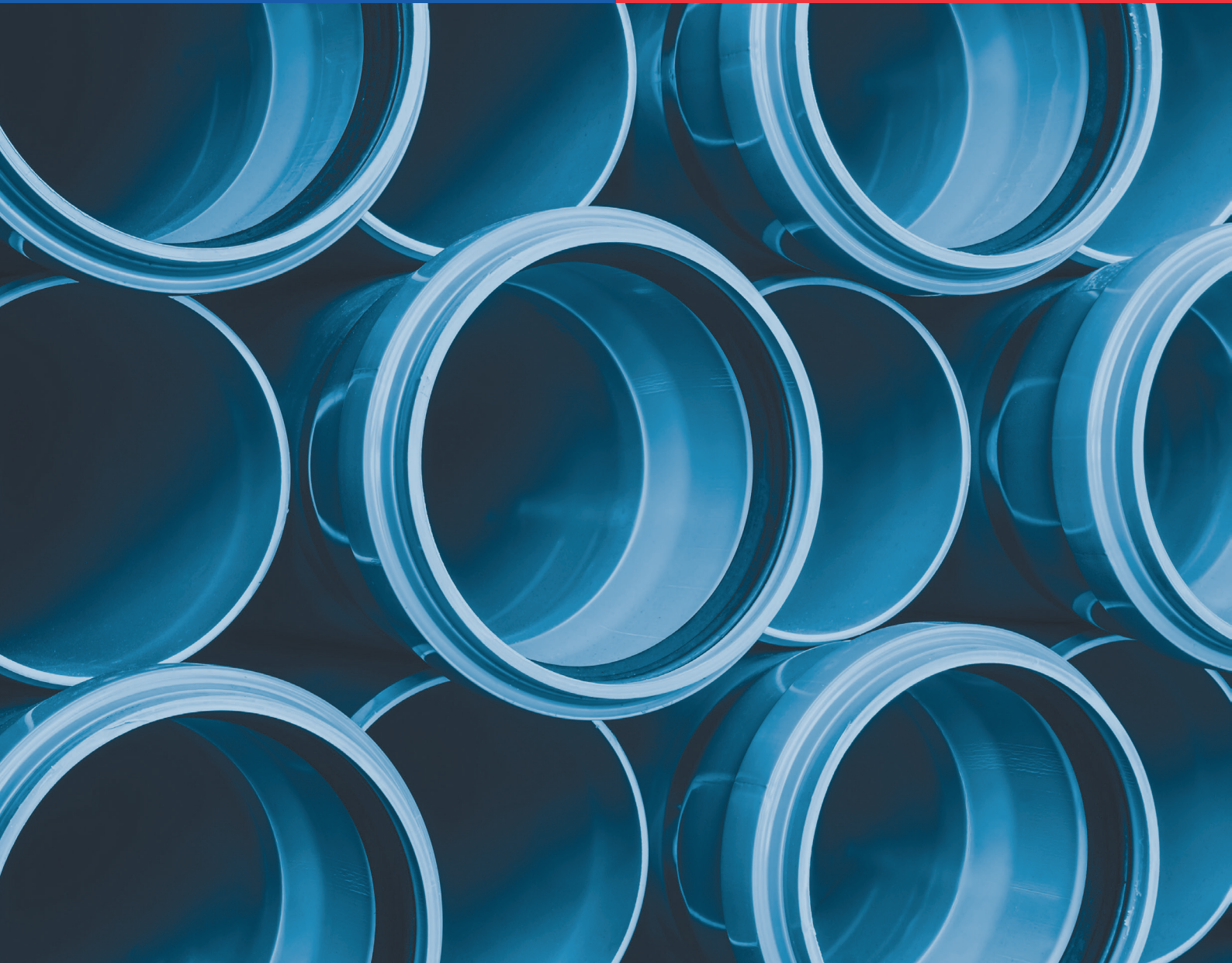




POLYPROPYLENE MINERAL  
REINFORCED PP-MD SILENT AND  
ULTRA SILENT PIPE SYSTEMS  
**Product Catalogue**



**almona** SEWAGE & DRAINAGE



Only products bearing the NSF, SASO, WRAS, DVGW and SKZ Mark are certified by those organizations.

[almonaplast.com](http://almonaplast.com)

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# ABOUT US

Almona is a leading Saudi Arabian plastic pipe manufacturing company and since our establishment in 2008 we have constantly evolved to meet the requirements of our most demanding customers. Our aim is to provide sophisticated and diverse pipe solutions for hot and cold water applications, telecommunication networks, sewage and drainage systems together with water and gas infrastructure.

We are a certified to ISO 9001:2015 Quality Management Systems organization and all our products comply with the appropriate Saudi (SASO), German (DIN) and International (ISO) Standards. Our pipe systems for drinking water applications are NSF-61, WRAS and DVGW certified and all Almona products are tested extensively in our state-of-the-art laboratory, to ensure that the quality and performance are continuously maintained.

Almona's success is the result of the company's persistent commitment to continuous innovation and investment in technology, in the relentless pursuit of providing quality products and services. Today, we are pleased to offer a wide range of plastic products, divided into four categories:



BUILDINGS



SEWAGE AND DRAINAGE



INFRASTRUCTURE





TELECOMMUNICATION DUCTING

// WE DESIGN, DEVELOP, MANUFACTURE AND PROVIDE INNOVATIVE PIPE SOLUTIONS THAT BEST MEET THE NEEDS OF OUR CUSTOMERS //

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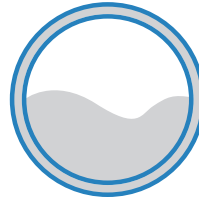
# CHARACTERISTICS OF **almona** PP-MD ULTRA SILENT PIPE SYSTEMS

<b>Material</b>	PP-MD mineral reinforced ultra silent pipe and fittings
<b>Installation</b>	Underground, inside and outside buildings
<b>Area of applications</b>	Drainage pipes in buildings and above ground installation <ul style="list-style-type: none"><li>• Inside buildings (B) : DN40 to DN50</li><li>• Inside and under the buildings (BD) : ≥DN 75</li></ul>
<b>Colors</b>	External and inner layers:  RAL 5012 Middle layer:  Light Blue
<b>Noise Transmission Level</b>	silent pipe: 0.5 l/s 14 dB; 1.0 l/s 16 dB; 2.0 l/s 16 dB; 4.0 l/s 18 dB ultra silent pipe: 0.5 l/s 10 dB; 1.0 l/s 12 dB; 2.0 l/s 12 dB; 4.0 l/s 14 dB
<b>Ring Stiffness</b>	> 6kN/m <sup>2</sup>
<b>Fire Behaviour</b>	<ul style="list-style-type: none"><li>• B<sub>2</sub> DIN 4102-1</li><li>• E EN 13501-1</li></ul>
<b>Pipe Technology</b>	3-layers technology <ul style="list-style-type: none"><li>• <b>Outer layer:</b> High stiffness &amp; impact resistant PP</li><li>• <b>Middle layer:</b> High stiffness mineral reinforced soundproof</li><li>• <b>Inner layer:</b> Chemical &amp; abrasion resistant PP</li></ul>
<b>Connection</b>	Rubber ring joint socket with factory-installed 3 lip innovative sealing gasket
<b>Gasket Technology</b>	3-lips innovative design of rubber sealing gasket. <ul style="list-style-type: none"><li>• Tensioning and retaining lip prevent dirt build-up between the pipe wall and the rubber gasket and stop the rubber gasket from being pressed out or rolling during push fit connection.</li><li>• Wiping lip keep back any dirt on the pipe during the connection.</li><li>• Sealing lip assures a thing long-term connection.</li></ul>
<b>Options</b>	UV resistant

# ADVANTAGES OF almona PP-MD SYSTEMS



**Ultra-Silent**  
Noise transmission level  
of 12 dB at a water flow  
of 2/l/s



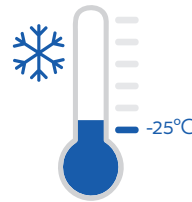
**High stiffness**  
due to 3-layer almona  
technology



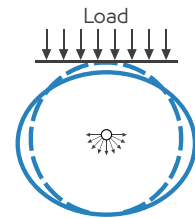
**Easy connection** to other  
pipe systems such as  
PP-MD, HDPE, PVC  
without additional transition  
fittings required



**High temperature  
resistance** up to 90°C  
(peak 95°C)



**Operation and  
installation** at low  
temperatures  
(-25°C)



**Resistance to external  
loads** due to improved  
elasticity



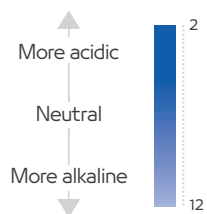
**Resistant to ground  
movement** due to  
innovative 3-lip design of  
rubber sealing gasket



**Leak free system**  
due to 3-lip innovative  
rubber sealing gasket



**Fast and easy  
installation** (push-fit) and  
contamination free due to  
the innovative design of  
the rubber sealing gasket



**Chemical resistance**  
ranging from pH2  
to pH12



**Corrosion free system**



**100% recyclable**  
and sustainable  
systems

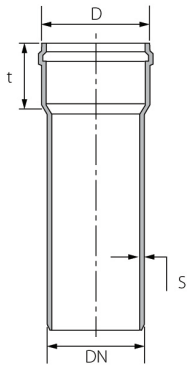
# PRODUCT RANGE

## Pipes

Almona mineral reinforced silent and ultra silent polypropylene pipes range in size from DN 32mm to 200mm.

**Silent PP-MD pipes** with push-fit socket and 3-lip rubber sealing ring

**Material:** mineral reinforced polypropylene

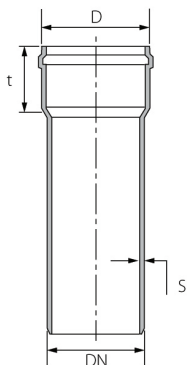


Code	Noise Transmission Level* dB	DN (mm)	D (mm)	S (mm)	t (m)	Pipe length (m)
	16	32	45	3.4	42	6
	16	40	55	3.4	44	6
	16	50	65	3.4	46	6
	16	75	90	3.4	49	6
	16	90	107	3.4	54	6
	16	110	130	3.4	65	6
	16	125	149	3.9	72	6
	16	160	186	4.9	75	6
	16	200	228	6.2	108	6

\*at a water flow of 2l/s

**Ultra silent PP-MD pipes** with push-fit socket and 3-lip rubber sealing ring

**Material:** mineral reinforced polypropylene



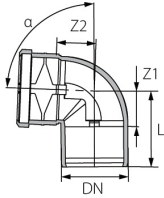
Code	Noise Transmission Level* dB	DN (mm)	D (mm)	S (mm)	t (m)	Pipe length (m)
	12	32	45	3.4	42	6
	12	40	55	3.4	44	6
	12	50	65	3.4	46	6
	12	75	90	3.4	49	6
	12	90	107	3.4	54	6
	12	110	130	4.2	65	6
	12	125	149	4.8	72	6
	12	160	186	6.2	75	6
	12	200	228	7.7	108	6

\*at a water flow of 2l/s

## Fittings

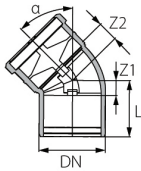
Almona mineral reinforced ultra silent polypropylene fittings range in size from DN 32mm to 200mm.

### Bend 87,5°



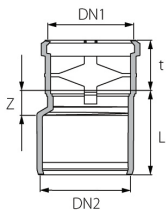
Code	DN (mm)	L (mm)	Z1 (mm)	Z2 (mm)
	50	97	39	52
	75	125	60	69
	110	158	82	93
	160	195	95	108

### Bend 45°



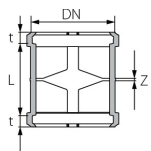
Code	DN (mm)	L (mm)	Z1 (mm)	Z2 (mm)
	50	75	17	27
	75	86	21	33
	110	110	34	41
	160	149	49	59

### Reducer



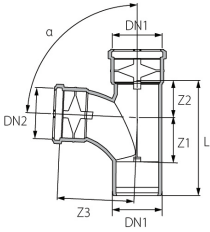
Code	DN 1 (mm)	DN 2 (mm)	L (mm)	t (mm)	Z (mm)
	32	50			
	50	75			
	50	110			
	75	110			
	110	160	44	69	151

### Double Socket



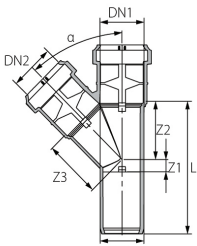
Code	DN (mm)	L (mm)	t (mm)	Z (mm)
	50	65	20	3
	75	75	22	3
	110	85	28	3
	160	108	38	4

## Tee 87,5°



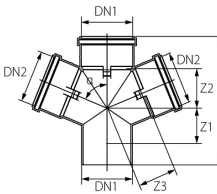
Code	DN 1 (mm)	DN 2 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L (mm)
	50	50	38	40	83	136
	75	75	60	54	105	179
	110	110	82	73	134	231
	160	110	72	78	136	250
	160	160	95	103	155	298

## Branch 45°



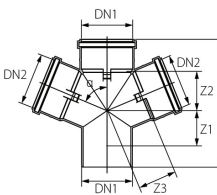
Code	DN 1 (mm)	DN 2 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L (mm)
	50	50	16	68	68	142
	75	75	26	98	98	189
	110	110	34	141	141	251
	160	110	19	171	175	290
	160	160	53	205	205	358

## Double Branch 45°



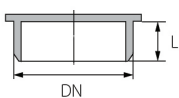
Code	DN 1 (mm)	DN 2 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L (mm)
	110	110	34	141	141	320

## Double Branch 87.5°



Code	DN 1 (mm)	DN 2 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L (mm)
	110	110	82	73	93	300

## End Cap



Code	DN (mm)	L (mm)
	110	50
	160	70

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# ACOUSTIC PERFORMANCE MEASUREMENTS

Determination of the acoustic performance of Almona PP-MD ultra-silent pipes and fittings systems was done in accordance to EN14366 "Laboratory measurement of noise from wastewater installations" and by following the German standards: DIN 4109, VDI 4100 and EN ISO 10052.

Almona PP-MD silent pipes and fittings system are certified at a noise transmission level of:

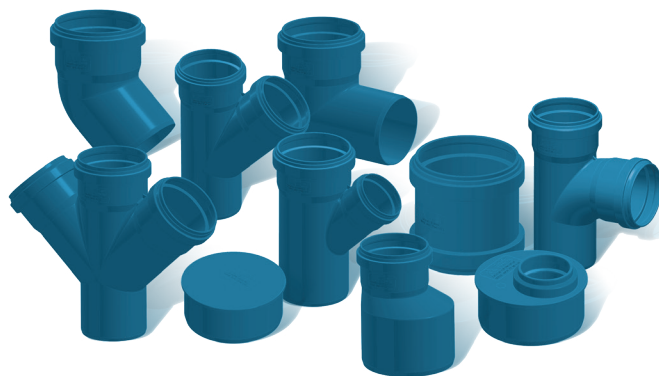
- 18 db at a water flow of 4l/s
- 16 db at a water flow of 2l/s
- 16 db at a water flow of 1l/s
- 14 db at a water flow of 0.5l/s

Almona PP-MD ultra-silent pipes and fittings system are certified at a noise transmission level of:

- 14 dB at a water flow of 4 l/s
- 12 dB at a water flow of 2 l/s
- 10 dB at a water flow of 0,5 l/s

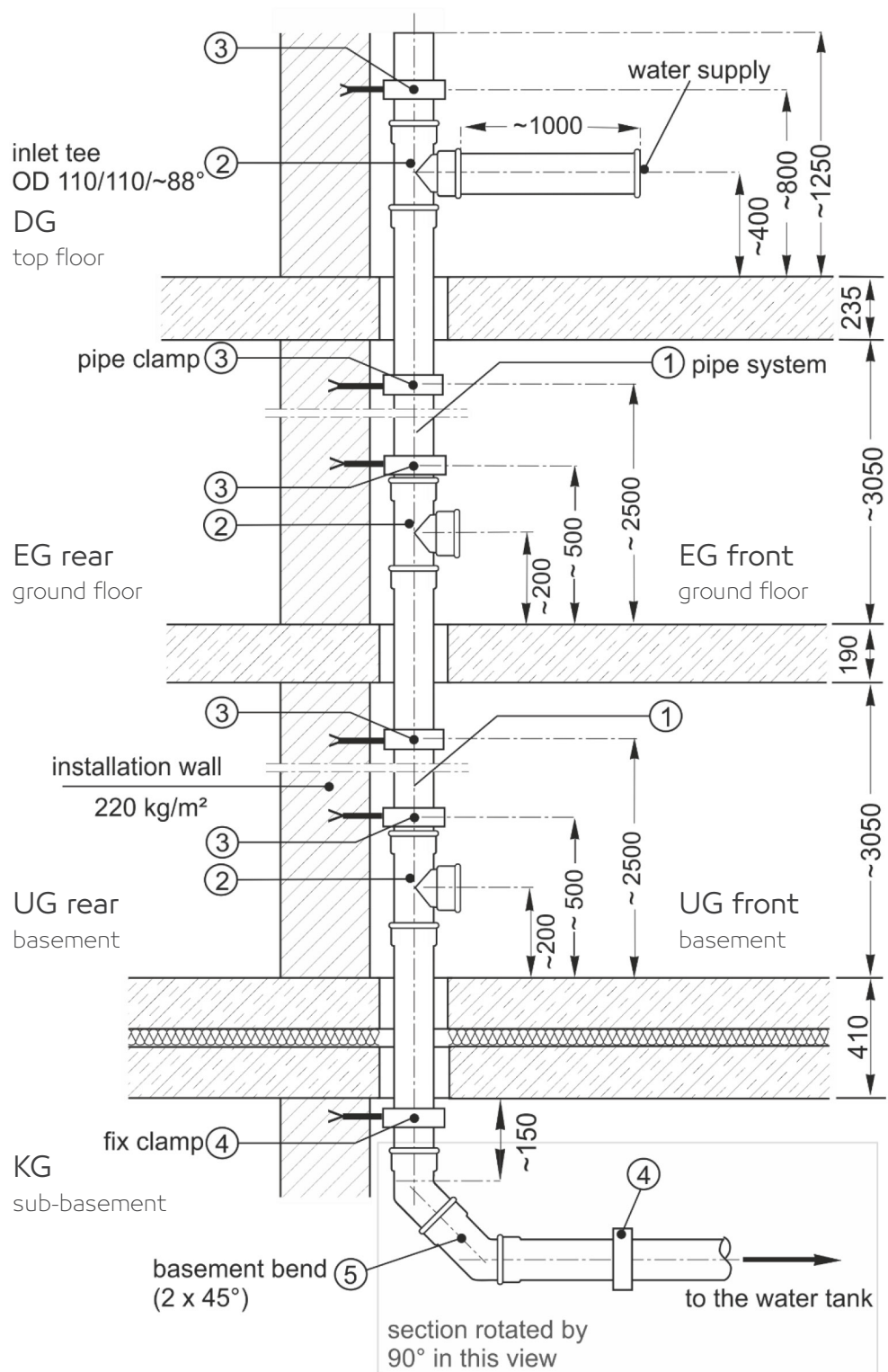
The 12 and 16 dB values are measured at the bottom floor in the room next to the downpipe where the soil & waste flow and resulting noise levels are highest, especially in multi-storey living apartments or high-rise buildings that have a combined soil and waste flow.

All tests were carried out in the accredited institute, for building physics, Fraunhofer in Germany.





# Schematic installation of the waste water system at the test facility





**Saudi made**

صنع بالسعودية



**High quality**

جودة عالية



[almonaplast.com](http://almonaplast.com)



T +966 11 410 2326  
E [info@almonaplast.com](mailto:info@almonaplast.com)

P.O. Box: 270736 Riyadh 11352  
Kingdom of Saudi Arabia

شركة مصنع المنى للمنتجات البلاستيكية  
Almona Plastic Products Ltd. Co.