

# Soil & waste system



### SAFETY & DURABILITY OF THE SOIL & WASTE SYSTEM



## Oaliaxis

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## The Aliaxis Group

Driven by passion, we create sustainable, innovative solutions for water and power supply. We provide to people all over the planet innovating plastic piping systems by operating our business to stay future-proof for the growing needs of our customers.

We're local at heart and global in spirit!

We leverage the global perspective of the Aliaxis Group to support our local activities. The sum of local experiences allows us to create solutions beneficial to the customers around the world. We have over 100 distribution centres and more than 70 production plants in over 40 countries. Every day, over 15,000 of our team members passionately and responsibly create and deliver reliable solutions to our customers.



## AMAXPRO SAFETY& DURABILITY OF THE SOIL & WASTE SYSTEM



Effective noise attenuation



Assembly in temperature below -10°C



Easy inspection by camera

Transparency White inner layer of pipe Easy control after instalation

## AMAXPRO – MANUFACTURING TECHNOLOGY

The AMAXPRO soil and waste system is a range of products made by co-extrusion to produce three-layer structural piping. Each layer of the piping has a different material formula and endows the AMAXPRO system with unique mechanical properties and performance.

The piping is coextruded in a continuous process as follows: • First, the three grades of input material (PP) are fused together by coextrusion, forming a integral, indivisible three-layer structure;

• Second, the piping coextruded so passes a calibration and cooldown process, where it takes on the final shape and form; the process subjects the AMAXPRO piping to alternating stressing and conditioning, which produces the final high mechanical properties;

• Subsequently, the outer wall of the system's piping has the identification marking printed on it and in the last step, the piping is cut to the declared

length;

- The process of cutting into sections is closely synchronised with the line speed to keep the section length as declared in the identification marking and retain the layout of graphical content;
- The last manufacturing stage is to flare the pipe ends into sockets, package the product into units designed specifically for each pipe section length and packaged quantity.



lmage 1



lmage 2



Image 3

## AMAXPRO – THREE LAYERS

Coextrusion of three PP layers is a precision process which requires constant control of production parameters. Each layer is different and has a specific role in the finished form of the product.



#### INNER LAYER

- PP-copolymer
- White
- In direct contact with sewage at +90°C [+95°C]
- Enables snake cam inspection



MIDDLE LAYER - PP-MD

- (with mineral modifiers)
- Dark grey
- Provides mechanical properties, including high rigidity



OUTER LAYER

- PP-copolymer
- Grey
- Directly exposed to ambient environment
- Resistant to low temperatures [-10°C]

## **HIGH MECHANICAL STRENGTH**

The multi-layer structure of the piping and the mineral-modified PP provides the AMAXPRO system with high ring stiffness (SN) and considerable mechanical strength when compared to regular soil and waste system products.

The AMAXPRO system can be installed and operated indoors (as ducting of stacks, branch drains, and laterals), and installed and embedded in concrete as sub-rough systems.\*

Compared to regular HT soil and waste piping, the AMAXPRO system provides

higher resistance to:

- mechanical action external stress
- (impact resistance and resistance to handling and storage damage); - weathering – temperature variations
- (the structure remains stable during long-term storage and transport at low temperatures).



Image 4



lmage 5



Image 6

\* Applicable to series SN4 piping.

### FEASIBLE INSTALLATION BELOW -10°C

Given the modern evolution of construction work methods, plumbing and mechanical installations are built with suitable systems in every season at the construction site. The AMAXPRO facilitates the same and conforms to PN-EN 11173. It can be safely installed at temperatures below -10°C, ensuring full seal integrity of the joints during service life.

Installation of regular HT soil and waste piping at temperatures below -10°C may cause the socket joint to develop cracks which, as the temperature increases (in the summer or when handling hot sewage), become deeper and wider, releasing foul and musty odour.



Image 7

### RESISTANT TO HOT SEWAGE

Aside from high mechanical strength and optimum performance at low temperatures, a professional soil and waste piping system must be capable of safely handling hot sewage.

The AMAXPRO system can safely handle hot sewage constantly at +90°C and very hot sewage at +95°C transient, without any detriment to the piping structure.



Image 8



Image 9 Inspection of an AMAXPRO piping at a pipeto-pipe joint

### ENABLES SNAKE CAM INSPECTION

Post-installation internal inspection of soil and waste stacks and branch drains is becoming common practice at construction sites. This practice allows the plumbing contractor and the project owner to make sure that the finished system is perfectly unobstructed, clean, and ready for commissioning. Modern soil and waste piping inspection tools can penetrate piping measuring Ø 50 to Ø 160 of diameter.

Another important matter is the in-service inspection of soil and waste piping which is clogged from daily use. The AMAXPRO has a white inner layer which facilitates quick visual inspection and easy pinpointing of clogs.

The AMAXPRO piping with the white inner layer and the AMAXPRO fittings with the grey inner layer make it very easy to pinpoint where fittings are installed along a stack or a branch drain, which are characteristic locations in the soil and waste piping.



## TECHNICAL DATA SHEET OF THE AMAXPRO SOIL AND WASTE SYSTEM

Specification	Three-layer piping coextruded with a PP-MD middle layer
Pipe and fitting diameter range	Ø 32, Ø 40 - white* Ø 50, Ø 75, Ø 110, Ø 125, Ø 160 mm - grey (3-layer piping)
Section length	250, 315, 500, 1000, 2000, 3000 mm
Wall thickness	Ø 32-50 - 1.8 mm, Ø 75 - 1.9 mm; Ø 110 - 2.7 mm, Ø 125 - 3.9 mm; Ø 160 - 4.9 mm
Connection type	Sealed socket couplings with gaskets per PN-EN 13254
Fastening type	Commercially available rubber-lined steel brackets for soil and waste piping installation
Structure	Three-layer pipe
Material	Mineral-modified polypropylene – PP-MD Copolymer – PP-copolymer
Colour	Inner layer: white – PP-copolymer Middle layer: black – PP-MD Outer layer: grey – PP-copolymer
Chemical resistance	Ref. the AMAXPRO chemical resistance specification table
Maximum sewage temperature	+90°C continuous; +95°C transient
Approvals	ITB-KOT-2018/0516, 2nd edition Fraunhofer Stuttgart Institute Report P-BA 53/2019e
System properties	<ul> <li>High ring stiffness</li> <li>High mechanical strength (indoor installation, can be embedded in concrete)</li> <li>Feasible installation at &gt; -10°C</li> <li>Easy snake cam inspection – white inner layer</li> <li>Certified acoustic properties</li> </ul>
Fire resistance	compliant to DIN 4102 and PN-EN 13501

\* White PP piping manufactured in the compact version (monolithic wall)

## NATIONAL STANDARDS & TECHNICAL ASSESSMENTS

The AMAXPRO system has the following:

ITB (Building Research Institute) National Technical Assessment ITB-KOT - 2018/0516, 2nd edition, "AMAXPRO three-layer piping made from mineral-modified PP, for indoor soil and waste piping". The AMAXPRO piping the NTA applies to conforms to a number of safety and quality standards.



"AMAXPRO THREE-LAYER PP PIPING FOR ACOUSTIC SOIL & WASTE SYSTEM"



Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure.

Thermoplastics piping systems for non-pressure applications. Test method for watertightness.

**PN-EN 13254** 



Thermoplastics pipes. Determination of resistance to external blows. Staircase method.

Elastomeric seals. Material requirements for pipe joint seals used in water and drainage applications.





Plastics piping systems. Thermoplastics piping systems for soil and waste discharge inside buildings. Test method for resistance to elevated temperature cycling.

Gravity drainage systems inside buildings. Sanitary pipework, layout and calculation.



## DESIGN PRINCIPLES OF THE AMAXPRO SOIL AND WASTE SYSTEM

#### **INTENDED USE**

The AMAXPRO soil and waste system of pipes and fittings is intended for safe, odourless discharge of grey and foul wastewater from buildings. The AMAXPRO system components can be applied as: - Soil and waste branch drains between sanitary fixtures and laterals or stacks:

- Soil and waste stacks for discharge from sanitary fixture branch drains

installed on building floors;

- Waste laterals for discharge from waste stacks (and suspended, buried, or sub-rough) to mains drainage;
- Ventilation risers, installed in parallel to waste stacks to assist in sewerage venting.

#### DESIGN ENGINEERING OF SOIL AND WASTE SYSTEMS

The design engineering parameters for soil and waste systems are specified in PN-EN 12056, "Gravity drainage systems inside buildings – Sanitary pipework, layout and calculation.

The standard is the reference for the determination of design data:

- Piping diameter;
- Maximum waste branch drain length;
- Maximum sanitary fixtures connected per branch drain;
- Piping downgrade;
- Diameter of the ventilation stack.

#### LAYOUT OF PIPING BRACKETS

The AMAXPRO piping system features high rigidity and mechanical strength of the structure.

This provides a better resistance to deformation during installation of stacks (risers) and operation of soil and waste piping, allowing longer spacing of pipe brackets.

This aspect is critical to safe design of soil and waste stacks and branch drains.

The pipe bracket spacing is shown in the figure for a standard building storey height h=2.58 m.

The soil and waste stack pipe brackets should be fastened below the pipe socket of the joint or below the branch drain or lateral tie-in. The bracket spacing along branch drains and laterals shall be  $15 \times d_n^*$ , where  $d_n$  is the pipe O.D.

15 x d<sub>n</sub>\* max 2,5m 15 x d<sub>n</sub>\* Fig. 5

 $^{*}$  For a pipe O.D. 125 mm or 160 mm, the maximum lateral piping bracket spacing is 10 x d\_,

## DESIGN PRINCIPLES OF THE AMAXPRO SOIL AND WASTE SYSTEM

#### **BRACING RUNS**

Short stabilising run:

With a soil and waste stack height up to 10 m, the turn of the stack

into a lateral waste branch is recommended to be formed with two 45° elbows and a pipe section in between measuring L<240 mm, with the same O.D.

Long stabilising run:

With a soil and waste stack height measuring more than 10 m, the run between the elbows shall be L=240 mm.

Section length L (mm)	Pipe diameter d <sub>n</sub> (mm)	Clearance from floor X <sub>1</sub> (mm)	Clearance from floor X <sub>2</sub> (mm)
240	110	160	270
240	160	160	325

#### **OFFSET ELBOW**

In high-rise buildings which have more than seven storeys (and with the standard storey height measuring h = 2.58 m, slab floor thickness included), every 7-8 storeys

and starting from the highest soil and waste stack point, the energy of sewage flowing down at a high speed can be optionally decelerated with offset elbows.

An example configuration for the specified pipe diameter is shown in the figure.

Stack diameter d <sub>n</sub> (mm)	Clearance X <sub>3</sub> (mm)	
110	230	
160	315	

#### FULLY STANDARD SIZES

The AMAXPRO soil and waste system is fully compatible for connection to other PN-EN 1451 soil and waste systems installed in buildings.

This means that every pipe or fitting diameter provides the same, standard connection method without any need for adapters. The AMAXPRO can be easily connected to standard soil and waste systems made of PP-HT, PVC, PE, or cast iron. The basic examples of connections are shown in the figures.









Fig. 7

## **CUTTING AND JOINING OF PIPES**

#### **PIPE CUTTING**

Before cutting a pipe, measure the required finished length along the pipe wall and cut off the obsolete remainder. Use dedicated tools for pipe cutting (Image 13) or a pipe saw and mitre (Image 14), but keep the cut angle 90° to the pipe centreline.





Image 13



Image 14

Another important step is to properly deburr and chamfer the cut-off pipe edge with dedicated tools (Image 15 and 16). See the table below for the chamfer length and angle.

Ø	40	50	75	110	125	160	[mm]
b	3.0	3.5	3.5	4.5	5.0	6.0	[mm]







Image 15

Image 16

#### JOINING OF PIPES WITH 10 mm EXPANSION JOINTS

To eliminate the effects of linear thermal expansion and shrinking of pipe sections,

maintain an offset of 10 mm within each socket joint.

When connecting a plain pipe end\* to a socket, press the former up to stop at the socket inner wall (Image 17).

Next, use a felt tip pen to draw a line on the pipe at the edge of the socket and pull out the pipe from the socket by 10 mm all around.



Image 17

## ASSEMBLY & INSTALLATION OF THE AMAXPRO SOIL AND WASTE SYSTEM



Image 18 Use a level to set out the path of the AMAXPRO soil and waste stack.



#### Image 19

Measure and mark out the pipe bracket locations and branch drain tie-ins along the set-out stack path.



Image 20 Drill the holes to fit the diameter of the piping.



Image 21 Drive the wall plugs into the holes and install each pipe bracket by screwing it into the wall plug.



Image 22 An open pipe bracket shown ready to secure the piping.



Image 23 In the last installation step, place the pipe/fitting in each bracket and bind both halves of the bracket to secure.

#### INSTALLATION OF AMAXPRO PIPING IN SUB-ROUGH SYSTEMS

The AMAXPRO piping with the BD application marking can be laid and embedded in concrete as sub-rough lateral drains. The installation depth and the topping layer thickness of the embedding should conform to best practices of sub-rough design; before casting the flooring material, shield the socket connections with a (3-5 mm) bat to secure each of the two ends. An example configuration for the specified pipe diameter is shown in the figure.



Image 24

## **PRODUCT DATA CATALOGUE – AMAXPRO PIPES**

#### PP-HT AMAX pipe / white, PPB

d <sub>n</sub> [mm]	e <sub>n</sub> [mm]	L [mm]	Index	Pcs. /pack.	Pack. type
32	1.8	250	PPB-032-018-025	30	BOX
32	1.8	315	PPB-032-018-031	30	SHT
32	1.8	500	PPB-032-018-050	90	BOX
32	1.8	1000	PPB-032-018-100	10	SHT
32	1.8	2000	PPB-032-018-200	10	SHT
40	1.8	250	PPB-040-018-025	21	BOX
40	1.8	315	PPB-040-018-031	35	SHT
40	1.8	500	PPB-040-018-050	50	BOX
40	1.8	1000	PPB-040-018-100	10	SHT
40	1.8	2000	PPB-040-018-200	10	SHT



#### PP-HT AMAXPRO pipe / grey, PRO

d <sub>n</sub> [mm]	e <sub>n</sub> [mm]	L [mm]	Index	Pcs. /pack.	Pack. type
50	1.8	250	PRO-050-018-025	25	SHT
50	1.8	315	PRO-050-018-031	25	SHT
50	1.8	500	PRO-050-018-050	10	BNDL
50	1.8	1000	PRO-050-018-100	10	BNDL
50	1.8	2000	PRO-050-018-200	10	BNDL
50	1.8	3000	PRO-050-018-300	10	BNDL
75	1.9	250	PRO-075-019-025	25	SHT
75	1.9	315	PRO-075-019-031	25	SHT
75	1.9	500	PRO-075-019-050	10	BNDL
75	1.9	1000	PRO-075-019-100	10	BNDL
75	1.9	2000	PRO-075-019-200	10	BNDL
75	1.9	3000	PRO-075-019-300	10	BNDL
110	2.7	250	PRO-110-027-025	12	SHT
110	2.7	315	PRO-110-027-031	12	SHT
110	2.7	500	PRO-110-027-050	10	BNDL
110	2.7	1000	PRO-110-027-100	10	BNDL
110	2.7	2000	PRO-110-027-200	10	BNDL
110	2.7	3000	PRO-110-027-300	10	BNDL
160	4.9	500	PRO-160-049-050	28	PLT
160	4.9	1000	PRO-160-049-100	28	PLT
160	4.9	2000	PRO-160-049-200	28	PLT
160	4.9	3000	PRO-160-049-300	28	PLT



BOX – cardboard box SHT – film wrap BNDL – tied bundle PLT – pallet

<b>PP-HT AMAX elbow</b> ,	/ white, BKL
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α°	d <sub>n</sub> [mm]	Z <sub>1</sub> [mm]	Z <sub>2</sub> [mm]	Index	Pcs. /pack.	Pack. type
15°	32	3	5	BKL-032-018-015	50	SHT
	40	4	7	BKL-040-018-015	20	SHT
30°	32	5	7	BKL-032-018-030	50	SHT
	40	7	10	BKL-040-018-030	20	SHT
45°	32	8	10	BKL-032-018-045	50	SHT
	40	10	14	BKL-040-018-045	20	SHT
67.5°	32	18	14	BKL-032-018-067	50	SHT
	40	20	21	BKL-040-018-067	20	SHT
87.5°	32	18	20	BKL-032-018-090	50	SHT
	40	23	26	BKL-040-018-090	20	SHT



#### **PP-HT AMAX elbow** / grey, KLW

α°	d <sub>n</sub> [mm]	Z, [mm]	Z <sub>2</sub> [mm]	Index	Pcs. /pack.	Pack. type
	50	5	9	KLW-050-018-015	50	SHT
150	75	7	10	KLW-075-019-015	20	SHT
12-	110	9	14	KLW-110-027-015	20	SHT
	160	13	19	KLW-160-000-015	1	SHT
	50	9	12	KLW-050-018-030	50	SHT
700	75	12	15	KLW-075-019-030	20	SHT
30-	110	17	22	KLW-110-027-030	20	SHT
	160	24	30	KLW-160-000-030	1	SHT
	50	12	16	KLW-050-018-045	50	SHT
( E0	75	18	21	KLW-075-019-045	20	BOX
45-	110	25	29	KLW-110-027-045	20	SHT
	160	36	42	KLW-160-000-045	1	SHT
	50	20	23	KLW-050-018-067	50	SHT
67.5°	75	28	31	KLW-075-019-067	20	BOX
	110	40	44	KLW-110-027-067	20	SHT
	50	28	31	KLW-050-018-090	50	SHT
	75	40	43	KLW-075-019-090	20	BOX
87.5°	110	57	61	KLW-110-027-090	20	SHT
	160	83	89	KLW-160-000-090	1	SHT

#### **PP-HT AMAX branch / white, BTR**

α°	d <sub>n</sub> [mm]	Z <sub>1</sub> [mm]	Z <sub>2</sub> [mm]	Z <sub>3</sub> [mm]	Index	Pcs. /pack.	Pack. type
1.50	32/32	8	40	40	BTR-032-032-045	50	SHT
45°	40/40	10	50	50	BTR-040-040-045	20	SHT
47 E0	32/32	16	23	23	BTR-032-032-067	20	SHT
67.5°	40/40	18	35	35	BTR-040-040-067	20	SHT
0750	32/32	20	21	21	BTR-032-032-090	50	SHT
07.5-	40/40	23	25	25	BTR-040-040-090	20	SHT

#### **PP-HT AMAX** branch / grey, TRW

α°	С	Z <sub>1</sub> [mm]	Z <sub>2</sub> [mm]	Z <sub>3</sub> [mm]	Index	Pcs. /pack.	Pack. type
	50/50	12	62	62	TRW-050-050-045	50	SHT
	75/50	-1	79	74	TRW-075-050-045	20	SHT
	75/75	-1	79	74	TRW-075-075-045	20	SHT
4.E0	110/50	-17	104	92	TRW-110-050-045	20	SHT
45-	110/75	1	116	109	TRW-110-075-045	20	SHT
	110/110	25	134	34	TRW-110-110-045	15	SHT
	160/110	1	168	159	TRW-160-110-045	1	SHT
	160/160	36	194	194	TRW-160-160-045	1	SHT
	50/50	20	41	41	TRW-050-050-067	50	SHT
	75/50	14	54	46	TRW-075-050-067	10	BOX
4750	75/75	14	54	46	TRW-075-075-067	10	BOX
07.5-	110/50	8	73	54	TRW-110-050-067	20	SHT
	110/75	22	78	67	TRW-110-075-067	8	BOX
	110/110	40	86	86	TRW-110-110-067	15	SHT
	50/50	28	30	30	TRW-050-050-090	50	SHT
	75/50	38	42	42	TRW-075-050-090	10	BOX
	75/75	38	42	42	TRW-075-075-090	10	BOX
	110/50	28	60	32	TRW-110-050-090	20	SHT
87.5°	110/75	38	60	43	TRW-110-075-090	8	BOX
	110/110	57	62	62	TRW-110-110-090	15	SHT
	160/110	58	86	64	TRW-160-110-090	1	SHT
	160/160	83	89	89	TRW-160-160-090	1	SHT







#### PP-HT AMAX reducer / white, BZW; grey, ZWW

$d_{n}^{\prime}/d_{n1}^{\prime}$	Z <sub>1</sub> [mm]	Index	Pcs. /pack.	Pack. type
50/32	10	BZW-050-032-000	20	SHT
50/32	18	ZWW-050-032-000T	20	BOX
50/40	10	ZWW-050-040-000T	15	BOX
75/50	20	ZWW-075-050-000	50	SHT
110/50	10	BZW-110-050-000	10	SHT
110/50	40	ZWW-110-050-000	50	SHT
110/75	26	ZWW-110-075-000T	15	BOX
160/110	34	ZWW-160-110-000T	10	SHT

#### **PP-HT AMAX short reducer, inverted / grey, ZWW**

$d_n/d_{n1}$	Z, [mm]	Index	Pcs. /pack.	Pack. type
50/40	-18	ZWW-050-040-0KR	20	SHT
40/50	6	ZWW-050-040-INW	20	SHT
75/50	-20	ZWW-075-050-0KRT	20	BOX
110/50	-48	ZWW-110-050-0KR	50	SHT
110/75	-48	ZWW-110-075-0KR	50	SHT

#### **PP-HT AMAX** double branch / grey, CZK

α°	d [m㎡]	d /d [mm]	Index	Pcs. /pack.	Pack. type
67.5°	50	50	CZK-050-050-067	50	SHT
	75	75	CZK-075-075-067	1	SHT
	110	50	CZK-110-050-067	10	SHT
	110	110	CZK-110-110-067	10	SHT

## 

dn1

dn



#### **PP-HT AMAX** double corner branch / grey, CZP

α°	d <sub>n</sub> [mm]	d <sub>n</sub> /d <sub>n</sub> [mm]	Index	Pcs. /pack.	Pack. type
67.5°	110	110	CZP-110-110-067	10	BOX

#### **PP-HT AMAX sliding outer sleeve** / white, BMP

d <sub>n</sub> [mm]	L [mm]	Index	Pcs. /pack.	Pack. type
32	95	BMP-032-000-000	50	SHT
40	100	BMP-040-000-000	20	SHT

#### **PP-HT AMAX sliding outer sleeve** / grey, MPW

d <sub>n</sub> [mm]	L [mm]	Index	Pcs. /pack.	Pack. type
50	105	MPW-050-000-000	50	SHT
75	110	MPW-075-000-000	20	SHT
110	128	MPW-110-000-000	20	SHT
160	196	MPW-160-000-000	1	SHT







#### **PP-HT AMAX outer sleeve w**/stop / grey, MDW

d <sub>n</sub> [mm]	L [mm]	Index	Pcs. /pack.	Pack. type
50	105	MDW-050-000-000	50	SHT
75	110	MDW-075-000-000	20	SHT
110	128	MDW-110-000-000	20	SHT
160	196	MDW-160-000-000	1	SHT



#### **PP-HT AMAX soil pipe plug / white, BKK**

d <sub>n</sub> [mm]	L [mm]	Index	Pcs. /pack.	Pack. type
40	40	BKK-040-000-000	20	SHT



#### **PP-HT AMAX soil pipe plug / grey, KKW**

d <sub>n</sub> [mm]	L [mm]	Index	Pcs. /pack.	Pack. type
32	40	KKW-032-000-000T	20	BOX
40	40	KKW-040-000-000	20	SHT
50	40	KKW-050-000-000	50	SHT
75	45	KKW-075-000-000	20	SHT
110	64	KKW-110-000-000	50	SHT
160	58	KKW-160-000-000	1	SHT



#### PP-HT AMAX cleanout / grey, CZW

d <sub>n</sub> [mm]	L [mm]	Index	Pcs. /pack.	Pack. type
50	60	CZW-050-000-000	20	SHT
75	90	CZW-075-000-000	10	BOX
110	119	CZW-110-000-000	15	SHT
160	155	CZW-160-000-000	1	SHT



#### EasyBoss SDM universal branch saddle

d <sub>n</sub> [mm]	Index	Pcs. /pack.	Pack. type
110/40	SDM-110-040-090	1	SHT
110/50	SDM-110-050-090	1	SHT



#### TRA cast-iron piping adapter

d <sub>n</sub> [mm]	Index	Pcs. /pack.	Pack. type
50	TRA-050-000-000	10	SHT
75	TRA-075-000-000	10	SHT
110	TRA-110-000-000	10	SHT

#### USZ gasket for CI pipe adapter

d <sub>n</sub> [mm]	Index	Pcs. /pack.	Pack. type
50	USZ-TRA-050-000	1	SHT
75	USZ-TRA-075-000	1	SHT
110	USZ-TRA-110-000	1	SHT

#### **NAP** aerator

d <sub>n</sub> [mm]	Index	Pcs. /pack.	Pack. type
50	NAP-050-000-000	18	SHT
75	NAP-075-000-000	16	SHT
110	NAP-110-000-000	6	SHT

#### WYW vent terminal

d [mm]

32

40

50 75 110

d <sub>n</sub> [mm]	Index	Pcs. /pack.	Pack. type
50	WYW-050-000-000	50	SHT
75	WYW-075-000-000	40	SHT
110	WYW-110-000-000	20	SHT
160	WYW-160-000-000	1	SHT

Pcs./Pack.

type

50 50

50 50

50

Pack.

type

SHT

SHT

SHT SHT

SHT



#### UCH-STL steel bracket w/wall plug

UCH-PVC plastic bracket w/wall plug

Index

UCH-PVC-032-000 UCH-PVC-040-000 UCH-PVC-050-000 UCH-PVC-075-000 UCH-PVC-110-000

d <sub>n</sub> [mm]	Index	Pcs. /pack.	Pack. type
32	UCH-STL-032-000	100	BOX
40	UCH-STL-040-000	100	BOX
50	UCH-STL-050-000	100	BOX
75	UCH-STL-075-000	50	BOX
110	UCH-STL-110-000	50	BOX
160	UCH-STL-160-000	25	BOX



## IDENTIFICATION MARKING OF THE AMAXPRO SOIL AND WASTE SYSTEM

#### **TECHNICAL DATA:**

- 1 Material type
- 2 Dimensional conformity
- 3 Diameter / wall thickness / pipe length
- 4 System properties in graphical encoding:
  - High mechanical strength
  - Easy installation
  - Installation feasible below -10°C
  - Polish Construction Mark "B"
- 5 Technical Assessment / National Declaration of Performance
- 6 Essential product characteristics

#### **PRODUCTION DATA:**

- 7 Production day / month / year
- 8 hour / production line no. / shift no.
- 9 Manufacturer's data

The identification marking shown above enables full control over the AMAXPRO system quality, storage, logistics, and distribution. It provides a number of utility functions during assembly and installation of the soil and waste system.



Fig. 13

## PACKAGING, STORAGE AND TRANSPORT OF AMAXPRO PIPES & FITTINGS

The AMAXPRO soil and waste system is packed a way to enable easy and convenient handling through the logistic processes and indoor or outdoor storage. All fittings and pipes up to 0.5 m long are film wrapped with specific colours to facilitate identification in storage. The film wrapping provide considerable protection (against UV light, for example). 0.5 m and longer pipes are bundled on pallets.

The exact specification of quantity in bulk packaging and on pallets are provided in the AMAXPRO Product Data Catalogue.

Do not transport AMAXPRO pipes and fittings loose and/or with other construction products which can cause damage.

Handle and transport the pipes laid flat.

Protect the products against damage when handling at low temperatures. Do not drop, slide, or bend fittings and pipes when unloading at a storage yard or the construction site. The bulk packaging type is fully compatible with pneumatic lifts and forklift trucks.

Store the pipe sections flat and on a level surface in stacks up to 1.5 m high.

Protect all products against direct exposure to sunlight.

The products can be stored outdoors for no more than 12 months. Keep each pipe and fitting diameter and length separately.





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