akatherm

dBlue

Acoustic Soil & Waste System

Enjoy silence

FACT

Trend towards noise reduction

Higher living standards have dictated lower acceptable noise production of installed drainage systems. For instance an acceptable noise level in a 4-star hotel at night time is 25 dB.

FACT

Fast building construction

Fast building constructions rely heavily on a time plan with strict deadlines for each part of the installation. A fast installation of the drainage system is therefore essential in meeting the overall construction planning.

FACT

Increasing global standards

Wide spread accessibility of information has increased local awareness. Large construction companies take their practice across the world, thereby raising the minimum standards.

Driven by comfort

Increased living standards have shaped modern installation regulations of drainage systems. Today, whether a consultant or installer, you need soil & waste solutions capable of responding to the commercial challenges faced by your clients' and end users' businesses. The drive for more:

Comfort of living

End users gain more comfort of living with Akatherm dBlue. The system is optimised for acoustic comfort using the latest production techniques, ensuring an installation that meets the most stringent noise regulations.

Freedom of application

Its high resistance against heat and chemicals together with unique products for high-rise and underground approval enable Akatherm dBlue to be used as a single system installation in a broad range of applications.

Speed of installation

A distinctive benefit of Akatherm dBlue is the fast installation. Easy to use and secured socket connections minimise installation time of each joint without further use of electrical tools.

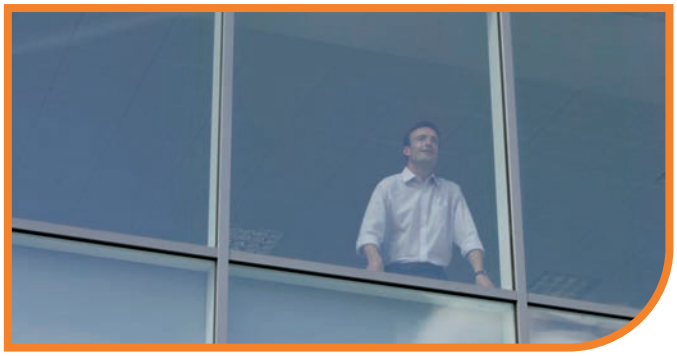
Proven systems

Akatherm dBlue is a high quality acoustic soil & waste system produced in conformity with the EN1451. It meets national and international quality and safety standards.

These particular challenges can only be overcome by a specialist drainage solution. Akatherm helps you to meet these demands with confidence.

Akatherm dBlue offers more than just an acoustic soil & waste system. Like every specialist drainage solution from Akatherm, it comes with a comprehensive level of support.

All our systems are backed by solid research, full training and unique products, plus the service standards you would expect from high performance drainage experts and the worldwide backing of the Aliaxis group.

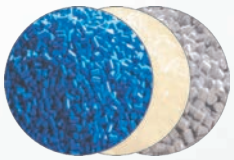


Akatherm dBlue designed for noise reduction

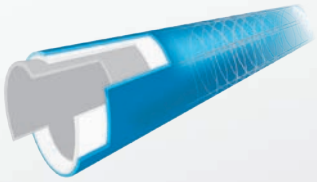
The Akatherm dBlue system is made from a state-of-the-art combination of plastic and sound absorbing mineral filler (PP-MD) to maximise absorbance of sound. The material formula is developed by the Aliaxis R&D laboratory and offers a unique combination of acoustic performance, weight, resistance and mechanical strength.

The triple-layer pipe structure is produced using the latest co-extrusion technology. Each layer has its own function optimised to reduce sound levels, increase mechanical characteristics and improve the drainage flow.

Used in conjunction with the dBlue acoustic brackets, the system effectively uncouples the vibrations and greatly reduces noise and acoustic vibrations down to a level of 19 dB. This makes it ideal for residential housing, multi occupancy apartments as well as hospitals, hotels and other commercial buildings, where reduced noise levels are required.



State-of-the-art material formula



Latest co-extrusion technology

19dB

High noise reduction

Enjoy urban living

Akatherm dBlue is ideal for residential housing, multi occupancy apartments, high-rise as well as hospitals, hotels and other commercial buildings, where reduced noise levels are required.

Hotels
Spas
Residential housing

High-rise
Multi occupancy apartments
Commercial buildings

Hospitals
Care buildings

Acceptable noise in our everyday surroundings

The acceptable noise level that a person can be exposed to while performing everyday activities and relaxing is described as 'the threshold noise level value'. Noise in drainage systems is generated by waste water falling vertically through downpipes as well as waste water in horizontal pipes running through concealed ceilings.

Structure-borne noise reduction

Structure-borne noise is effectively dampened by:

- dBlue acoustic bracket with rubber lining
- Tight rubber ring connection between pipe and fitting

Air-borne noise reduction

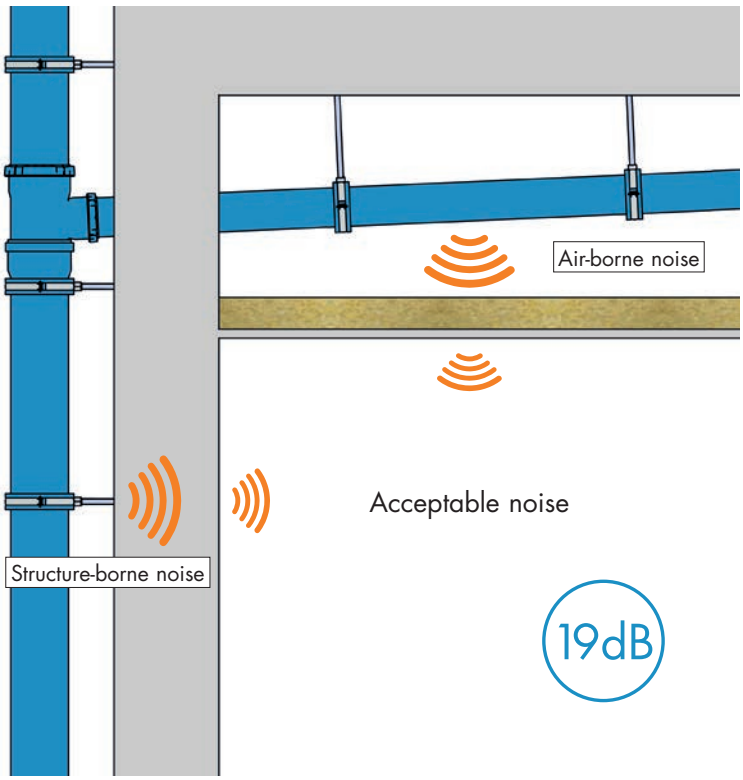
Air-borne noise is effectively reduced by:

- Pipe and fittings from PP-MD
- Triple layer pipe

Acceptable noise

Akatherm dBlue effectively reduces noise levels compared to the acceptable noise in our everyday surroundings:

- Habitable room at nighttime 25 dB
- Hospital wards at daytime 30 dB
- Non-habitable rooms daytime 40 dB
- dBlue 19 dB



Proven results meeting strictest requirements

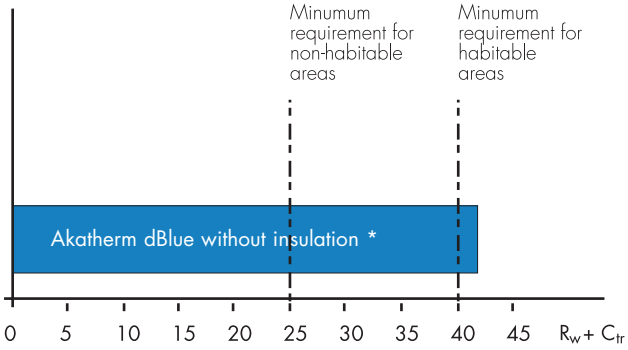
Tests and measurements of noise emitted by the Akatherm dBlue system were conducted according to the European standard EN 14366 'Laboratory measurement of noise from waste water installations'.

The Akatherm dBlue system is certified at a noise transmission level of 19 dB at a water flow of 4 l/s using dBlue acoustic brackets with rubber lining.

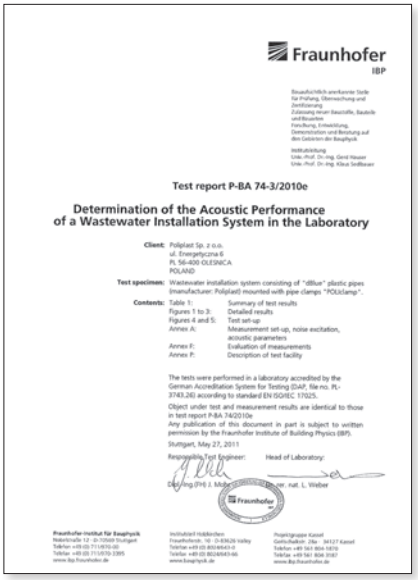
The 19 dB is measured at the bottom floor in the room next to the downpipe where the soil & waste flow and resulting noise levels are highest, especially in multi-storey living apartments or high-rise buildings that have a combined soil & waste flow.

All tests were carried out in the accredited institute for building physics Fraunhofer in Germany. Results are available in test report P-BA 74-3/2010e.

Akatherm dBlue has also been independently tested by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia and meets the required $R_w + C_{tr}$ 25 and 40 benchmarks without the need for insulation.



* $R_w + C_{tr}$ 40 results are extrapolated based on the $R_w + C_{tr}$ 25 results.


Fraunhofer IBP

Test report P-BA 74-3/2010e

Determination of the Acoustic Performance of a Wastewater Installation System in the Laboratory

The $R_w + C_{tr}$ stands for a weighted sound reduction index and it basically indicates the effectiveness of a system as a noise insulator. A higher number is a better performance. $R_w + C_{tr}$ shall have the required value rated in accordance to ISO 717 measured according to ISO 140.

CSIRO is Australia's national science agency, and is one of the largest and most diverse scientific institutions in the world with more than 50 sites throughout Australia and overseas.

Quality and certification

Akatherm dBlue is developed and manufactured within an ISO 9001 Quality Assurance system and complies with the EN 1451 and other relevant international standards as well as meeting numerous national approved quality and safety standards.

Germany | Australia | Sweden | Ukraine | Czech Republic | Poland

EN14366
Noise measurement

EN13501
Fire class measurement

ISO 9001
Quality management system

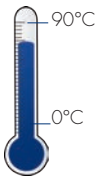
ISO 14001
Environmental management system

Best placed in the race

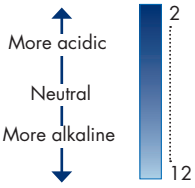
Robust, complete and installation friendly

Material advantages

High noise reduction without insulation



High resistance to waste water temperatures up to 90°C (peak 95°C)



High chemical resistance ranging from pH2 to pH12

Triple layer pipe is rigid, noise-attenuated with a smooth bore that resists incrustation and blockages

Sustainable system
100% recyclable
ISO 14001 certified company

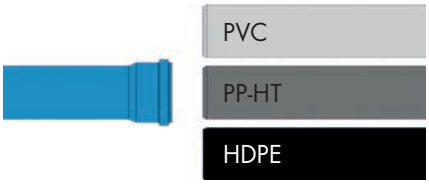
Installation possible at temperatures down to -10°C

System advantages

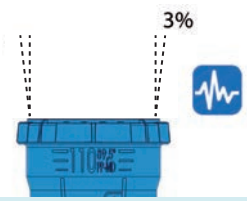
dBlue acoustic brackets with rubber lining reduce acoustic vibrations to a minimum

Fast installation of rubber ring joints without additional tools

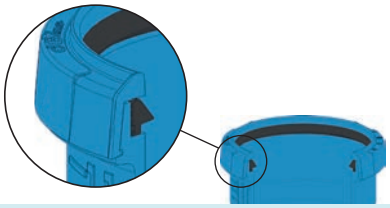
No vent stack required in multi-storey buildings using the Akavent single stack system



Transitions to PVC, PP-HT and HDPE possible without additional transition fittings required



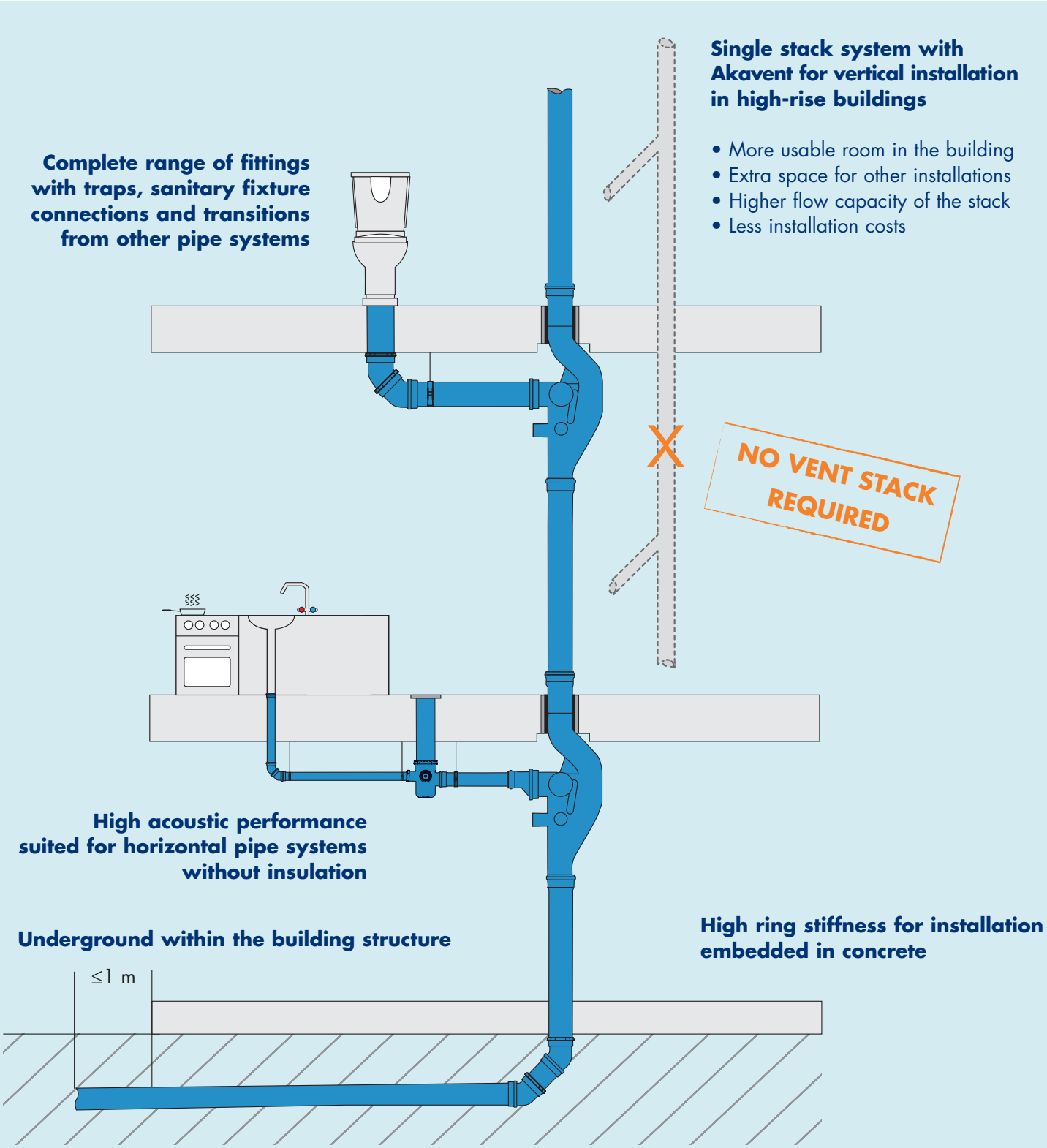
Rubber ring joint increases flexibility of the pipe system during ground movement or earthquake



Snap cap technology with tight rubber ring containment and installation angle indication

One system from start to finish

Akatherm dBlue offers a versatile system with a superior application range. It will reach from the highest point in a skyscraper to the exit point of the building structure. The Akatherm dBlue system has the special fittings, acoustic performance, resistance, ring stiffness and installation advantage that makes it useable at any place in the building.



Pipes

Pipe with socket

d	Length	Code
40 x 1,8	150	dB-PEU015H
40 x 1,8	250	dB-PEU025H
40 x 1,8	500	dB-PEU050H
40 x 1,8	1000	dB-PEU100H
40 x 1,8	1500	dB-PEU150H
40 x 1,8	2000	dB-PEU200H
40 x 1,8	3000	dB-PEU300H
50 x 1,8	150	dB-PEU015J
50 x 1,8	250	dB-PEU025J
50 x 1,8	500	dB-PEU050J
50 x 1,8	1000	dB-PEU100J
50 x 1,8	1500	dB-PEU150J
50 x 1,8	2000	dB-PEU200J
50 x 1,8	3000	dB-PEU300J
75 x 2,3	150	dB-PEU015P
75 x 2,3	250	dB-PEU025P
75 x 2,3	500	dB-PEU050P
75 x 2,3	1000	dB-PEU100P
75 x 2,3	1500	dB-PEU150P
75 x 2,3	2000	dB-PEU200P
75 x 2,3	3000	dB-PEU300P
90 x 2,8	150	dB-PEU015S
90 x 2,8	250	dB-PEU025S
90 x 2,8	500	dB-PEU050S
90 x 2,8	1000	dB-PEU100S
90 x 2,8	1500	dB-PEU150S
90 x 2,8	2000	dB-PEU200S
90 x 2,8	3000	dB-PEU300S
110 x 3,4	150	dB-PEU015V
110 x 3,4	250	dB-PEU025V
110 x 3,4	500	dB-PEU050V
110 x 3,4	1000	dB-PEU100V
110 x 3,4	1500	dB-PEU150V
110 x 3,4	2000	dB-PEU200V
110 x 3,4	3000	dB-PEU300V
125 x 3,9	150	dB-PEU015X
125 x 3,9	250	dB-PEU025X
125 x 3,9	500	dB-PEU050X
125 x 3,9	1000	dB-PEU100X
125 x 3,9	1500	dB-PEU150X
125 x 3,9	2000	dB-PEU200X
125 x 3,9	3000	dB-PEU300X
160 x 4,9	150	dB-PEU015Z
160 x 4,9	250	dB-PEU025Z
160 x 4,9	500	dB-PEU050Z
160 x 4,9	1000	dB-PEU100Z
160 x 4,9	1500	dB-PEU150Z
160 x 4,9	2000	dB-PEU200Z
160 x 4,9	3000	dB-PEU300Z

Fittings

Elbow

α	d	Code
15	40	VKL-040-000-15D
15	50	VKL-050-000-15D
15	75	VKL-075-000-15D
15	90	VKL-090-000-15D
15	110	VKL-110-000-15D
30	40	VKL-040-000-30D
30	50	VKL-050-000-30D
30	75	VKL-075-000-30D
30	90	VKL-090-000-30D
30	110	VKL-110-000-30D
45	40	VKL-040-000-45D
45	50	VKL-050-000-45D
45	75	VKL-075-000-45D
45	90	VKL-090-000-45D
45	110	VKL-110-000-45D
45	125	VKL-125-000-45D
45	160	VKL-160-000-45D
67	40	VKL-040-000-67D
67	50	VKL-050-000-67D
67	75	VKL-075-000-67D
67	90	VKL-090-000-67D
67	110	VKL-110-000-67D
87,5	40	VKL-040-000-90D
87,5	50	VKL-050-000-90D
87,5	75	VKL-075-000-90D
87,5	90	VKL-090-000-90D
87,5	110	VKL-110-000-90D
87,5	110	VKL-110-LRB-90D
87,5	125	VKL-125-000-90D
87,5	160	VKL-160-000-90D

Reducer eccentric

d	Code
50 x 40	VRD-050-040-00D
75 x 40	VRD-075-040-00D
75 x 50	VRD-075-050-00D
90 x 40	VRD-090-040-00D
90 x 50	VRD-090-050-00D
90 x 75	VRD-090-075-00D
110 x 50	VRD-110-050-00D
110 x 75	VRD-110-075-00D
110 x 90	VRD-110-090-00D
125 x 110	VRD-125-110-00D
160 x 110	VRD-160-110-00D
160 x 125	VRD-160-125-00D

Double socket

d	Code
40	VMD-040-000-00D
50	VMD-050-000-00D
75	VMD-075-000-00D
90	VMD-090-000-00D
110	VMD-110-000-00D
125	VMD-125-000-00D
160	VMD-160-000-00D

Sleeve socket

d	Code
40	VMP-040-000-00D
50	VMP-050-000-00D
75	VMP-075-000-00D
90	VMP-090-000-00D
110	VMP-110-000-00D
125	VMP-125-000-00D
160	VMP-160-000-00D

Branch

α	d	Code
45	40 x 40	VTR-040-040-45D
45	50 x 40	VTR-050-040-45D
45	50 x 50	VTR-050-050-45D
45	75 x 40	VTR-075-040-45D
45	75 x 50	VTR-075-050-45D
45	75 x 75	VTR-075-075-45D
45	90 x 40	VTR-090-040-45D
45	90 x 50	VTR-090-050-45D
45	90 x 75	VTR-090-075-45D
45	90 x 90	VTR-090-090-45D
45	110 x 40	VTR-110-040-45D
45	110 x 50	VTR-110-050-45D
45	110 x 75	VTR-110-075-45D
45	110 x 90	VTR-110-090-45D
45	110 x 110	VTR-110-110-45D
45	125 x 110	PTR-125-110-045
45	125 x 125	VTR-125-125-45D
45	160 x 110	VTR-160-110-45D
45	160 x 160	VTR-160-160-45D
67	40 x 40	VTR-040-040-67D
67	50 x 40	VTR-050-040-67D
67	50 x 50	VTR-050-050-67D
67	75 x 40	VTR-075-040-67D
67	75 x 50	VTR-075-050-67D
67	75 x 75	VTR-075-075-67D
67	90 x 40	VTR-090-040-67D
67	90 x 50	VTR-090-050-67D
67	90 x 90	VTR-090-090-67D
67	110 x 50	VTR-110-050-67D
67	110 x 75	PTR-110-075-067
67	110 x 110	VTR-110-110-67D
87,5	40 x 40	VTR-040-040-90D
87,5	50 x 40	VTR-050-040-90D
87,5	50 x 50	VTR-050-050-90D
87,5	75 x 40	VTR-075-040-90D
87,5	75 x 50	VTR-075-050-90D
87,5	75 x 75	VTR-075-075-90D
87,5	90 x 75	PTR-090-075-090
87,5	90 x 50	VTR-090-050-90D
87,5	90 x 90	VTR-090-090-90D
87,5	110 x 40	VTR-110-040-90D
87,5	110 x 50	VTR-110-050-90D
87,5	110 x 75	VTR-110-075-90D
87,5	110 x 90	VTR-110-090-90D
87,5	110 x 110	VTR-110-110-90D
87,5	125 x 110	PTR-125-110-090
87,5	125 x 125	VTR-125-125-90D
87,5	160 x 110	PTR-160-110-090
87,5	160 x 160	VTR-160-160-90D

Clean out branch 90°

d	Code
50	VCZ-050-000-00D
75	VCZ-075-000-00D
90	VCZ-090-000-00D
110	VCZ-110-000-00D
125	VCZ-125-000-00D
160	VCZ-160-000-00D

Double branch

α	d	Code
67	90 x 90	PCR-090-090-067
67	110 x 50	PCR-110-050-067
67	110 x 110	PCR-110-110-067
90	110 x 110	PCR-110-110-090

Double corner branch

α	d	Code
67	110 x 110	PCN-110-110-067

Akavent aerator

d	Code
110/110 x 75	WEN-110-110-75D
160/110 x 75	WEN-160-110-75D

Expansion socket

d	Code
75	VDK-075-000-00D
90	VDK-090-000-00D
110	VDK-110-000-00D

Socket plug

d	Code
40	VKK-040-000-00D
50	VKK-050-000-00D
75	VKK-075-000-00D
90	VKK-090-000-00D
110	VKK-110-000-00D
125	VKK-125-000-00D
160	VKK-160-000-00D

Traps

Floor waste gully

d	Code
110/50/50/50/75	VWP-110-050-75D

Adjustable disconnector trap

d	Code
90	VSF-090-000-00D
110	VSF-110-000-00D

Four way riser

d	Code
110/50/50/50/50	VKO-110-050-00D

Transition fittings

Transition from imperial PVC to dBlue

d	Code
43 x 40	TRA-PVC-043-040
43 x 50	TRA-PVC-043-050
56 x 50	TRA-PVC-056-050
69 x 75	TRA-PVC-069-075
69 x 110	TRA-PVC-069-110
82 x 90	TRA-PVC-082-090
82 x 110	TRA-PVC-082-110

Trap connection bend

d	Code
40 x 32	VKL-SYF-040-32D
40 x 40	VKL-SYF-040-40D
50 x 32	VKL-SYF-050-32D
50 x 40	VKL-SYF-050-40D

Trap connection socket

d	Code
40 x 32	VRD-SYF-040-32D
40 x 40	VRD-SYF-040-40D
50 x 32	VRD-SYF-050-32D
50 x 40	VRD-SYF-050-40D

Brackets

Acoustic bracket

d	Code
40	POB-STL-040-000
50	POB-STL-050-000
75	POB-STL-075-000
90	POB-STL-090-000
110	POB-STL-110-000
125	POB-STL-125-000
160	POB-STL-160-000

Acoustic bracket (plastic)

d	Code
40	POB-040-000-000
50	POB-050-000-000
75	POB-075-000-000
90	POB-090-000-000
110	POB-110-000-000
125	POB-125-000-000
160	POB-160-000-000

Fire collars

Fire collar

d	Code
40	POG-040-000-000
50	POG-050-000-000
75	POG-075-000-000
90	POG-090-000-000
110	POG-110-000-000
125	POG-125-000-000
160	POG-160-000-000

Accessories & spare parts

dBlue lubrication

	Code
250 ml	PAS-250-000-000

Rubber ring

d	Code
40	USZ-KAN-040-BL
50	USZ-KAN-050-BL
75	USZ-KAN-075-BL
90	USZ-KAN-090-BL
110	USZ-KAN-110-BL
125	USZ-KAN-125-BL
160	USZ-KAN-160-BL

akatherm

an Aliaxis company

Specialist Drainage Systems

Akatherm BV
Industrieterrein 11
PO Box 7149
NL-5980 AC Panningen
The Netherlands

Tel +31 (0)77 30 88 650
Fax +31 (0)77 30 75 232

info@akatherm.nl
www.akatherm.com

Aliaxis Building Solutions (ABS) Marketing Services JLT
PO Box 488100
Office 702 Indigo Tower
Jumeirah Lakes Towers
Dubai UAE

Tel +971 (0)4 362 9423
Fax +971 (0)4 458 7599

gulf@aliaxis.com
www.aliaxis-gulf.com