

Acaro PP SN 12

Solid wall pipe system according to DIN EN 1852

Application area:

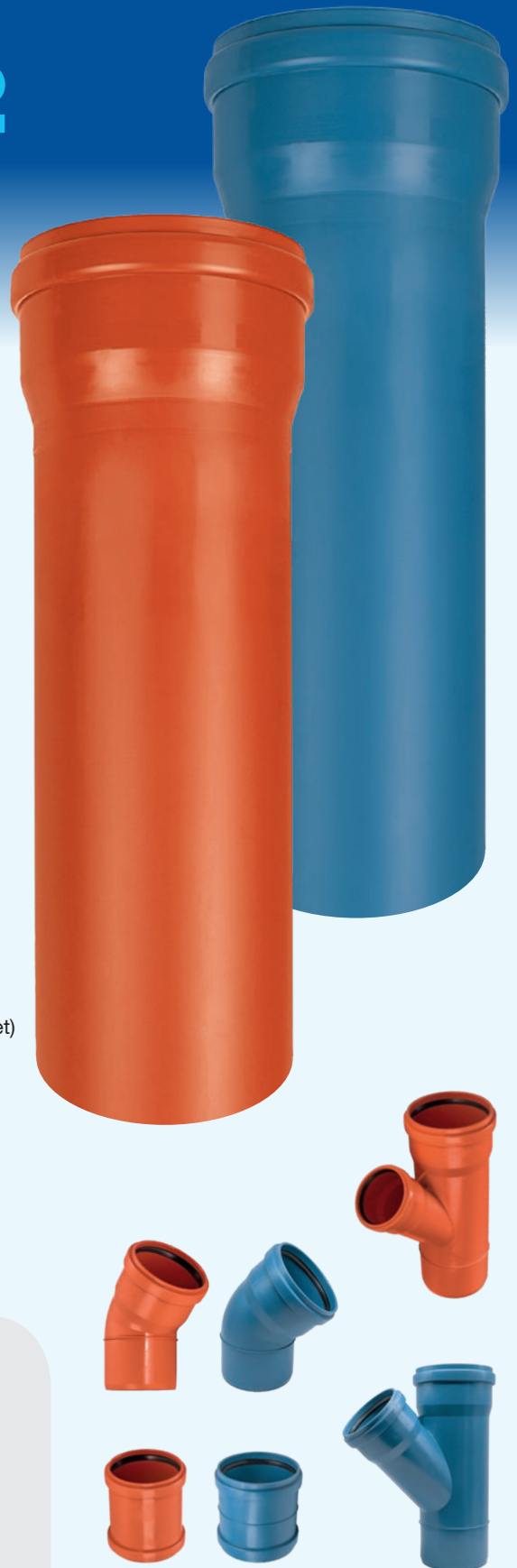
Acaro PP SN 12 is a solid wall pipe system with a ring stiffness of SN 12 in the colours red brown and blue. With the help of its clear colour coding both the sewer and the rainwater canal can be used for separation systems. The pipe system contains an anti-slip Seal, which can be removed, replaced on site if required and can be inserted easily. The homogeneous wall structure and the highly modular Polypropylene allows the use under heavy traffic LM 1 (DIN EN 1991-2/NA) former SLW60 and installation depths from 0.5 m to 6.0 m. The Acaro PP SN 12 pipe system can be used to drain domestic, municipal and industrial waste water according to chemical resistance. Due to the extended leak tests, the pipe system can be used in drinking water protection zones.

Product specifications:

- ⦿ **Nominal sizes:** DN/OD 110 – DN/OD 630 in red brown and DN/OD 160 – DN/OD 500 in blue
- ⦿ **Range of fittings:** bends, branches, double sockets, transitions and special fittings (see product range) in DN/OD 110 – DN/OD 630 in the respective colors
- ⦿ **Material:** Polypropylene (PP)
- ⦿ **Color:** red brown = foul water; blue = rainwater
- ⦿ **Standards:** DIN EN 1852
- ⦿ **Connections:** push fit system (DN/OD 160 – DN/OD 400 with integrated socket) and welding system (Acaro PP WS)
- ⦿ **Sealing material:** according to DIN EN 681-1; EPDM, on request NBR
- ⦿ **Sealing reliability:** tested at 5.0 bar pressure; 0.8 bar vacuum; root resistance according to DIN EN 14741, minimum contact pressure after 100 years 2.0 bar proven
- ⦿ **High pressure flushing resistance:** proven according to DIN 19523
- ⦿ **Chemical resistance:** according to chemical resistance list, ISO/TR 10358, DIN EN 1852; pH 2 – 12

Installation conditions:

- ⦿ Installation must be in accordance with DIN EN 1610
- ⦿ Compaction in layers of max. 30 cm height
- ⦿ Grain sizes depend on nominal pipe diameter and grain properties according to DIN EN 1610
- ⦿ Lower bedding layer according to Type I (100 – 150 mm), support angle of 90° and a cover of 150 mm
- ⦿ Compaction according to DIN EN 1610; depending on application Proctor $\geq 95\%$



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System specifications:

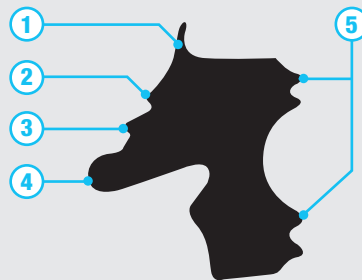
General	Diameter	DN/OD 110 – DN/OD 630
	Material	PP
	Ringstiffness (according to DIN EN ISO 9969)	≥ 12 kN/m ²
	Special features	inside marking
Construction/Seals	System	solid wall pipe
	inside	smooth
	outside	smooth
	Connections	push fit
Seal	standard	EPDM
	on request	NBR
Static	Min. coverage	0.50 m
	Max. coverage	6.00 m
	Max. installation depth in groundwater	5.00 m
	Traffic load	LM 1 according to DIN EN 1991-2/NA, rather: SLW 60 according to DIN 1072
Approvals and relevant standards	Product standard	DIN EN 1852
	Application standard	DIN EN 476
	Seal	DIN EN 681
	Installation	DIN EN 1610
	Guidelines	ATV-DWVK-A 142 ATV-DWVK-A 127 DWA-A 118 DWA-A 139 ZTV A-StB 97 ZTV E-StB 09

Sealing reliability:

The sealing safety is tested from –0.8 to 5.0 bar and thus meets the highest requirements in the market for pressureless piping systems. The sealing safety over the entire Service life and root resistance have been tested in accordance with DIN EN 14741. That sealing system meets the requirements for long-term tightness at 10 % deformation and a contact pressure of at least 2.0 bar after 100 years. In addition, the thermal cycling test at high temperatures and tightness during deangling of 2° tested and fulfilled. The gap dimension of the socket connection is significantly less than 1.5 % and thus offers further protection against root ingrowth. The system can be installed in drinking water protection zones II and III (DWA-A 142).

Sealing system:

Construction



- 1 **Supporting lip**
Secures the seal in the groove and supports it against the pipe
- 2 **Wiper lip**
Prevents penetration of small dirt particles
- 3 **Small sealing lip**
For sealing small scrapes on the pipe surface
- 4 **Large sealing lip**
For a large sealing surface and high contact pressure
- 5 **Double lip**
Two double lips for a safe and tight positioning in the groove

Function

Special construction, the sealing ring is firmly fixed in the beading positioned. The first lip works as a supporting lip.



Through the four-stage Structure become the insertion forces significantly minimized and it's easier to make the connection.



The support lip lays with complete pushed in pipe additionally against the pipe wall. This means that four sealing lips seal the pipe to ensure that both with internal as well as external pressure a high sealing reliability.

