

Calculation of static and live loading for buried pipes according to German ATV-A127(-2):2000 standards.

Please complete this document as best you can to assist our engineers with preliminary data for pipe profile selection to ensure short and long term performance requirements of AS/NZS2566 are met.

Project Name: _____

Location: _____

Customer: _____

Contact person: _____ Tel: _____

Email: _____

Request for: Budgetary/Estimate Tender Quotation

Project starting date: _____ Project completion

Date: _____ Required tender return date: _____

Pipe ID

Other sizes may be available depending on project size, scope and lead time

Application

Connection

Length of pipeline _____ m

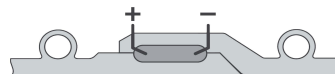
Inner colour

Outer colour

Desired pipe type



Double Rubber Ring



Electro-Fusion

Profile pipe

PKS Plus™ pipe

Solid wall pipe



Required pipe is alternative, or replacement to: Concrete GRP

Is this project design specific?

Yes No* minimum _____ kN/m2 ring stiffness required

Advantages of Polyethylene

- Less carbon footprint than concrete
- Environmentally friendly and 100% recyclable
- UV resistant
- Light weight
- High ring stiffness
- Leak free
- Smooth antibacterial surface
- Bright inner colour therefore inspection friendly
- Standard 6m lengths results super fast installation

Loads

Flow medium: _____

Density: _____ g/cm³

Operating temperature: minimum T_B : _____ C°
 maximum T_{max} : _____ C°

Operating Pressure P_0 : _____ bar (otherwise unpressurised)

Service Life: 50 years 100 years

Traffic load: NONE

HN-(Normal) loading -120kN

Light Vehicle loading (85% of HO) -204kN

HO-(Overload) loading -240kN

*Special loading

Special-purpose vehicle make and model _____

Thickness of load-distributing layer _____ mm

Total gross load (vehicle+load) _____ kN

Tyre foot prints _____ m2

Additional structural loading: _____ N/mm²

Ground water level above pipe bed: _____ mm

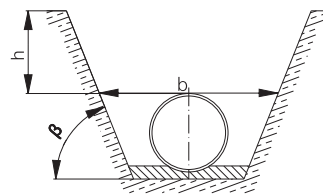
Installation

Trench (open cut)

Trench width at crown level (b): _____ mm

Slope angle (β): _____ °

Covering height above crown level (h): _____ mm



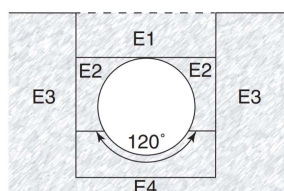
Sheet piled

Shield protection

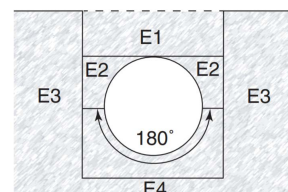
Bedding Support

Support angle

120°

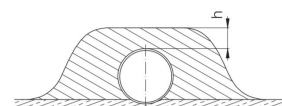


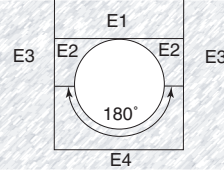
180°



Bank

Bank covering height (h): _____ mm



Soil zones	Soil type	E1	E2	E3	E4
	Group:				
	G1 - non cohesive (sand, gravel)	G1	G1	G1	G1
	G2 - slightly cohesive (sand,gravel)	G2	G2*	G2	G2
	G3 - cohesive mixed soil, coarse clay	G3	G3*	G3	G3
	G4 - clay, loam *Note: In zone E2 preferably use material (G1)	G4	G4*	G4	G4
	Density ρ_g	g/cm ³			
	Grade of density (85% - 100%), preferably $\geq 95\%$	%Dpr			
	E-Modulus E_b	N/mm ²			

Soil Types

group	specific weight b kN/m ³	internal friction angle	modulus of elasticity EB in N/mm ² at various compactions Dpr %						
			Dpr -	85%	90%	92%	95%	97%	100%
G1	20	35		2.0	6	9	16	23	40
G2	20	30		1.2	3	4	8	11	20
G3	20	25		0.8	2	3	5	8	13
G4	20	20		0.6	1.5	2	4	6	10

Soil Zones

E1	Covering above pipe crown
E2	Line zone on the side of the pipe
E3	Soil in-situ next to trench respectively embedded in the soil next to line zone
E4	Soil under pipe

Notes:

Security Class

Security class A

Definition:

Danger to ground water

Impairment of serviceability

Breakdown has considerable economic consequence

Security class B

Definition:

No danger to ground water

Little impairment of serviceability

Breakdown has little economic consequence