## HDPE Pipes Minimum and Maximum Cover: Cement Stabilised Backfill

**Minimum & Maximum Cover in meters**

| | | | | Minimum Cover | | | |
|---|---|---|---|---|---|---|---|
| Pipe Size | SN rating | Min. Trench Width | Multi Barrel Min Spacing From outside edge of pipe | Traffic Load - AS5100.2 SM1600 Load *See note 4 | Construction Equipment - Cat 793F Wheel Load *See note 6 | Railway Load - AS4799-2000 Table A1 (Average Intensity Railway Load) *See note 3 | Maximum Cover |
| 225 | 8 | 0.8 | 0.15 | 0.5 | 0.9 | 0.7 | 13.2 |
| 300 | 8 | 0.9 | 0.15 | 0.5 | 1.0 | 0.7 | 11.7 |
| 375 | 8 | 1.0 | 0.15 | 0.5 | 1.0 | 0.7 | 10.9 |
| 450 | 8 | 1.3 | 0.15 | 0.5 | 1.0 | 0.7 | 12.1 |
| 525 | 8 | 1.5 | 0.20 | 0.5 | 1.0 | 0.7 | 12.1 |
| 600 | 8 | 1.6 | 0.20 | 0.5 | 1.0 | 0.7 | 11.3 |
| 750 | 8 | 1.9 | 0.20 | 0.5 | 1.1 | 0.7 | 10.5 |
| 900 | 8 | 2.1 | 0.20 | 0.5 | 1.2 | 0.7 | 9.6 |
| 1050 | 8 | 2.3 | 0.20 | 0.5 | 1.3 | 0.7 | 9.0 |
| 1200 | 8 | 2.5 | 0.20 | 0.5 | 1.3 | 0.7 | 8.8 |
| 1500 | 8 | 2.8 | 0.20 | 0.5 | 1.4 | 0.7 | 8.0 |
| 1600 | 8 | 3.0 | 0.20 | 0.5 | 1.4 | 0.7 | 7.0 |
| 1800 | 4 | 3.2 | 0.20 | 0.6 | 1.9 | 1.5 | 5.0 |
| 2000 | 4 | 3.6 | 0.20 | 0.7 | 1.9 | 2.8 | 5.0 |

**Minimum covers in accordance to AS2566.1-1998**

| | |
|---|---|
| Not subject to vehicular loading | 0.3 m |
| Subject to vehicular loading - | |
| not in roadways | 0.45 m |
| in sealed roadways | 0.60 m |
| under unsealed roadways | 0.75 m |
| Subject to construction equipment loading | 0.75 m |

*Conditions to these datasheets:*

1 ***Based on a native soil (surrounding cement stabilised backfill) having a compaction of 90% MMDD, consisting of coarse-grained soil with more than 12% fines.***
2 ***Backfill material shall be a cement stabilised granular soil, achieving a minimum moduli of 25MPa, mixed in accordance to Appendix L of AS2566.2-Buried flexible pipelines Part 2: Installation.***
3 ***Minimum cover for rail installations has been specified from top of pipe to top of sub-ballast.***
4 ***SM1600 loading incorporates W80, A160, M1600, and S1600 traffic design loads detailed in AS5100.2-2004:***
***A160 traffic loads have an axle load of 160kN***
***M1600 traffic loads have an axle load of 120kN***
***S1600 traffic loads have an axle load of 80kN***
5 ***Railway loads have been designed for a single axle weight of 240kN***
6 ***Construction Cat 793F loads have been designed for a single axle weight of 2500kN, with maximum vehicle weight of 390 tonnes***