A-2000 PVC PIPE

HEIGHT OF COVER LIMITS

Based on the AASHTO LRFD Bridge Design Specifications, Section 12.12 “Thermoplastic Pipes”, the allowable heights of cover for A-2000 PVC pipe are as shown below:

Diameter (in.)	Maximum Height of Cover (ft.)	**Highway Loading** Minimum Height of Cover (ft.)	**E80 Loading** Minimum Height of Cover (ft.)
12	**50**	**1.0**	**2.0**
15	**50**	**1.0**	**2.0**
18	**50**	**1.0**	**2.0**
21	**50**	**1.0**	**2.0**
24	**50**	**1.0**	**2.0**
30	**50**	**1.0**	**2.5**
36	**50**	**1.0**	**2.5**

The minimum and maximum heights of cover in the table are based on the following:

1. The minimum and maximum heights of cover for highway loading and E80 loading are based on a backfill envelope with granular materials meeting AASHTO M145 requirements for A1 or A3 (ASTM D2321 Class I or Class II) compacted to 95% of standard density per AASHTO T99 (ASTM D698).
2. Maximum Heights of cover apply to both highway loading an E80 loading.
3. Maximum covers greater than those listed above can be achieved depending on backfill material. Contact you Contech representative.
4. Highway loading is HL-93 loading per AASHTO LRFD Bridge Design Specifications.
5. E80 railroad loading per AREMA Section 1.4 “Culverts”
6. For highway loads, the minimum cover shall be measured from the top of the pipe to the bottom of flexible pavement or the top of the rigid pavement.
7. For E80 loads, the cover shall be measured from the top of the pipe to the bottom of the rail tie.
8. 50-year properties of profile wall PVC pipe per AASHTO LRFD table 12.12.3.3-1 used for dead load and live load: minimum tensile strength, F_u = 3.70 KSI; 50-year modulus of elasticity, E_{50} = 400 KSI.
9. Unit weight of soil = 120 PCF.
10. Water table below spring-line of pipe.
11. For Construction Loads, additional cover may be required above the minimum height of cover.
12. AASHTO minimum height of cover for thermoplastic pipe is 2.0 feet with highway loading.