

HD100 PIPE

PRODUCT

LANE'S HD100 PIPE is a dual wall high density polyethylene (HDPE) pipe with a smooth interior and corrugated exterior manufactured for all drainage applications. Integrated bell and spigot couplers are provided on nominal 20' pipe lengths with diameters ranging from 6" to 60". Manning's roughness coefficient (i.e. Manning's n value) is conservatively factored to 0.012 for in-service design.

PIPE STANDARDS

LANE'S HD100 PIPE is certified and marked as AASHTO M252 pipe for diameters 6" to 10" and AASHTO M294 pipe for diameters 12" to 60".

JOINT PERFORMANCE

Bell and spigot joints with a factory-installed gasket on the spigot (elastomeric seal per ASTM F477) meet the watertight requirements of ASTM D3212 (laboratory pressure tested at 10.8 psi).

RAW MATERIAL

Virgin HDPE resins used for pipe production are documented by a certificate of analysis (i.e. third party certification) indicating the resin meets the cell classification requirements of AASHTO M252/M294 as defined by ASTM D3350.

SERVICE LIFE

LANE'S HD100 PIPE exceeds the AASHTO pipe material standards by using 100% virgin HDPE resins with enhanced long-term properties. Lane's higher material standards are aimed to ensure a minimum 100-year service life. Raw material and finished pipe are routinely tested to ensure consistency with the industry parameters used to establish 100-year service life.

CERTIFICATION

All HD100 pipe products with the Lane logo and the AASHTO marking are manufactured, tested and supplied in accordance with the National Transportation Product Evaluation Program (NTPEP), a division of AASHTO. Under this program Lane certifies that products (resin or pipe) it produces meets or exceeds the requirements of AASHTO M252/M294. An administrator, AASHTO Materials Reference Library (AMRL), validates Lane's certification through annual audits, testing, inspection and review of Lane's QC program.

MANUFACTURER'S WARRANTY

Lane ensures, certifies and documents that HD100 shipped to the job site meets the above claims and standards, and warranties the product is free of any material or workmanship defects.

HDPE Modulus of Elasticity (psi)	
Minimum	
Initial	110,000
50-yr	22,000
75-yr	21,000
100-yr	20,000

HDPE Tensile Strength (psi)	
Minimum	
Initial	3,00
50-yr	900
75-yr	900
100-yr	800

ASTM D3350 Cell Classification	
Minimum	
Dia. 6 to 10-in	424400C
Dia. 12 to 60-in	435400C

HD100 Pipe Offerings in Accordance with AASHTO M252/M294 Include:

- Fittings (manifolds, tees, elbows, et al.)
- Partially Perforated Pipe (Class 1 Perforations)
- Fully Perforated Pipe (Class 2 Perforations)

Installation in Accordance with ASTM D2321 or AASHTO Bridge Construction Specifications, Section 30.

See also Lane's HD100/HD100EC Pipe Installation Guide for minimum and maximum allowable cover depths.



Nominal Pipe ID (in)	6	8	10	12	15	18	24	30	36	42	48	60
Nominal Pipe OD (in)	7.05	9.40	12.00	14.50	17.50	21.50	28.00	34.50	41.00	47.50	54.50	66.71
Average Handling Weight (lb/ft)	1.25	2.00	2.50	3.75	5.50	7.50	12.00	17.50	21.25	28.75	32.50	43.83
Nominal Lay Length (ft-in)	20-0	20-0	20-0	20-0	20-0	20-0	20-0	20-0	20-0	20-0	20-0	19-6
Average Pipe Stiffness (psi)	61.5	62.0	64.1	56.9	50.2	49.8	41.0	35.6	27.8	24.0	22.1	17.1
AASHTO Minimum Pipe Stiffness (psi)	49.3	49.3	49.3	50.0	42.0	40.0	34.0	29.0	22.5	21.0	20.0	15.0