

# Product Notes



## Product Note 3.108

**Re:** Specification for Smooth Interior Corrugated N-12® Polyethylene Pipe for Leachate

**Date:** December, 1999

This specification applies to high-density polyethylene corrugated pipe with an integrally formed smooth interior for leachate collection.

This specification is applicable to nominal sizes 4-36 inch diameter. Leachate collection pipe shall meet or exceed all the requirements of AASHTO M 252 or AASHTO M 294, current edition.

Minimum parallel plate pipe stiffness values for leachate pipe shall be as specified in the table below.

Diameter		Pipe Stiffness ASTM D 2412 (5% Deflection)	
in	mm	psi	kN/m <sup>2</sup>
4"	100	70	485
6"	150	65	450
8"	200	60	415
10"	250	50	345
12"	300	50	345
15"	375	42	290
18"	450	40	275
24"	600	34	235
30"	750	28	195
36"	900	22	150

The nominal size for the pipe and fittings is based on the nominal inside diameter of the pipe. Corrugated fittings may be either molded or fabricated by the manufacturer. Fittings supplied by manufacturers other than the supplier of the pipe shall not be permitted without the approval of the Project Engineer.

Installation shall be in accordance with ASTM Recommended Practice D 2321, or as shown on the project plans.

A manufacturer's certification that the product complies with the requirement of the applicable specification shall be furnished to the Project Engineer upon request.

LEACHATE GRADE ADS N-12 PRODUCT INFORMATION SHEET

Nominal Diameter	Inside Diameter, Average	Outside Diameter, Average	Inner Liner Thickness, Minimum	Minimum Pipe Stiffness @ 5% Deflection	Weight kg./6m (lbs./20 ft.)	Area mm <sup>2</sup> /mm	"I" cm <sup>4</sup> /cm	"C" mm
100 mm (4")	104 mm (4.10")	120 mm (4.78")	0.635 mm (0.025")	485 kN/m <sup>2</sup> 70 psi	5.10 kg (11.24 lbs)	2.87 (0.113 in <sup>2</sup> /in)	0.026 (0.0016 in <sup>4</sup> /in)	3.56 (0.14 in)
150 mm (6")	152 mm (6.00")	176 mm (6.92")	0.635 mm (0.025")	450 kN/m <sup>2</sup> 65 psi	9.90 kg (21.83 lbs)	3.63 (0.143 in <sup>2</sup> /in)	0.062 (0.0038 in <sup>4</sup> /in)	5.08 (0.20 in)
200 mm (8")	200 mm (7.90")	233 mm (9.11")	0.9 mm (0.035")	415 kN/m <sup>2</sup> 60 psi	15.80 kg (34.83 lbs)	4.22 (0.166 in <sup>2</sup> /in)	0.128 (0.0078 in <sup>4</sup> /in)	6.35 (0.25 in)
250 mm (10")	251 mm (9.90")	287 mm (11.36")	0.6 mm (0.024")	345 kN/m <sup>2</sup> 50 psi	20.50 kg (45.20 lbs)	3.48 (0.137 in <sup>2</sup> /in)	0.134 (0.008 in <sup>4</sup> /in)	7.58 (0.30 in)
300 mm (12")	308 mm (12.15")	367 mm (14.45")	0.9 mm (0.035")	345 kN/m <sup>2</sup> 50 psi	28.96 kg (63.80 lbs)	5.50 (0.217 in <sup>2</sup> /in)	0.574 (0.035 in <sup>4</sup> /in)	10.92 (0.43 in)
375 mm (15")	380 mm (14.98")	448 mm (17.57")	1.0 mm (0.039")	290 kN/m <sup>2</sup> 42 psi	42.00 kg (92.50 lbs)	6.91 (0.272 in <sup>2</sup> /in)	0.901 (0.055 in <sup>4</sup> /in)	13.21 (0.52 in)
450 mm (18")	459 mm (18.07")	536 mm (21.20")	1.3 mm (0.051")	275 kN/m <sup>2</sup> 40 psi	58.38 kg (128.60 lbs)	6.93 (0.273 in <sup>2</sup> /in)	1.327 (0.081 in <sup>4</sup> /in)	14.48 (0.57 in)
600 mm (24")	612 mm (24.08")	719 mm (27.80")	1.5 mm (0.059")	235 kN/m <sup>2</sup> 34 psi	101.97 kg (224.60 lbs)	8.23 (0.324 in <sup>2</sup> /in)	2.245 (0.137 in <sup>4</sup> /in)	18.80 (0.74 in)
750 mm (30")	762 mm (30.00")	892 mm (35.10")	1.5 mm (0.059")	195 kN/m <sup>2</sup> 28 psi	139.97 kg (308.30 lbs)	9.60 (0.378 in <sup>2</sup> /in)	4.539 (0.277 in <sup>4</sup> /in)	21.84 (0.86 in)
900 mm (36")	914 mm (36.00")	1059 mm (41.70")	1.7 mm (0.067")	150 kN/m <sup>2</sup> 22 psi	163.98 kg (361.20 lbs)	10.19 (0.401 in <sup>2</sup> /in)	6.555 (0.400 in <sup>4</sup> /in)	25.40 (1.00 in)

Date: December, 1999