TABLE 1
PVC-DWV TYPE I
THERMAL EXPANSION TABLE
Chart Shows Length Change in Inches vs. Degrees Temperature Change
Coefficient of Linear Expansion: $e = 2.9 \times 10^{-5}$ in/in °F

Length (feet)	40°F	50°F	60°F	70°F	80°F	90°F	100°F
20	0.278	0.348	0.418	0.487	0.557	0.626	0.696
40	0.557	0.696	0.835	0.974	1.114	1.235	1.392
60	0.835	1.044	1.253	1.462	1.670	1.879	2.088
80	1.134	1.392	1.670	1.949	2.227	2.506	2.784
100	1.392	1.740	2.088	2.436	2.784	3.132	3.480

TABLE 1 (Metric)
PVC-DWV TYPE I
THERMAL EXPANSION TABLE
Chart Shows Length Change in Millimeters vs. Degrees Temperature
Coefficient of Linear Expansion: $e = \frac{0.2 \text{ mm}}{\text{mm °C}}$

Length (mm)	4°C	10°C	16°C	21°C	27°C	32°C	38°C
6096	7.1	8.8	10.6	12.4	14.2	15.9	17.7
12192	14.2	17.7	21.2	24.7	28.3	31.4	35.4
18288	21.2	26.5	31.8	37.1	42.4	47.7	53.0
24384	28.8	35.4	42.4	49.5	56.6	63.7	70.7
30480	35.4	44.2	53.0	61.9	70.7	79.6	88.4

Example:

Highest Temperature expected	100°F	(38°C)
Lowest Temperature expected	-50°F	(10°C)
	50°F	(10°C)

Length of run – 60 feet (18,288 mm) from chart, read 1.044 inches (26.5 mm) linear expansion that must be provided for.

2.7 Joints

2.7.1 Caulked Joints

Make connections or transitions to bell-and-spigot cast iron soil pipe fittings, and to bell-and-spigot pipe and fittings of other materials with listed mechanical compression joints designed for this use, or caulked joints made in an approved manner. In caulking, pack the joint with oakum or hemp and fill with molten lead to a depth of not less than one (1) inch (25.4 mm). Allow a period of four (4) minutes for cooling, following which, caulk the lead at the inside and outside edges of the joint. Lead shall not be overheated. [UPC 705.1.1]

2.7.2 Solvent Cement Joints

(Additional information is available in ASTM D2855.)

2.7.3 Selection. Follow manufacturer's recommendations for type of solvent cement for such conditions as temperature over 100°F (38°C), or humidity over 60%.

2.7.4 Handling (to maintain effectiveness). Solvent cement and primer containers no larger than 1 quart (1 liter) should be used in the field (to avoid thickening due to evaporation). Keep containers closed and in the shade when not in use. Keep applicator submerged in solvent cement between applications. When solvent