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MERIAM PVC-U PRESSURE PIPES – DATA SHEET

Applications

For potable water distribution, irrigation, sewage under pressure and industrial applications.

Characteristics

- Smooth internal surface preventing build up of deposits
- Good chemical resistance
- Good corrosion resistance
- Good abrasion resistance
- Very high rigidity
- Self extinguishing with a high ignition temperature
- Immunity to biological attack
- Hazen Williams coefficient: C=150
- Easily joined with integral sockets – no specialised equipment necessary
- A wide range of fittings and accessories available

Standards

Plassim's PVC-U pressure pipes are manufactured according Israeli Standard 532, EN ISO 1452.

Specification

- Material:
  - Specific gravity 1.4 g/cm³
  - Tensile strength 50 N/mm²
  - Modulus of elasticity 3000 N/mm²
  - Thermal conductivity 0.15 W/m ºC
  - Specific heat 0.23 kcal/kg ºC
  - Coefficient of linear thermal expansion 0.08 mm/m ºC
- Sockets: Solvent cement: 50-160mm , Bell with seal 75-710mm
- Colour: White
- Effective Length: 5.4m, 5.6m, 5.75m, 5.8m dependent on diameter and socket
- Wall thickness:

	PN6		PN8		PN10		PN12.5	
OD(mm)	Wall Thickness (mm)	Weight (kg/m)	Wall Thickness (mm)	Weight (kg/m)	Wall Thickness (mm)	Weight (kg/m)	Wall Thickness (mm)	Weight (kg/m)
50	1.5	0.37	2.0	0.48	2.4	0.57		
63	1.9	0.60	2.5	0.75	3.0	0.90		
75	2.2	0.81	2.9	1.00	3.6	1.25		
90	2.7	1.20	3.5	1.50	4.3	1.80		
110	2.6	1.38	3.4	1.80	4.2	2.20	5.3	2.70
125	3.0	1.79	3.9	2.30	4.8	2.80	6.0	3.45
140	3.3	2.22	4.3	2.80	5.4	3.55	6.7	4.35
160	3.8	2.90	4.9	3.70	6.2	4.65	7.7	5.70
200	4.7	4.46	6.2	5.83	7.7	7.13	9.6	8.77
225	5.3	5.70	6.9	7.40	8.6	9.00	10.8	11.25
280	6.6	8.72	8.6	11.45	10.8	14.10	13.4	17.45
315	7.4	10.99	9.7	14.50	11.9	17.95	15.0	22.00
355	8.5	14.18	10.9	18.45	13.4	22.75	16.9	28.00
400	9.4	17.66	12.3	23.50	15.0	28.90	19.1	35.70
450	10.6	22.34	13.8	29.65	16.9	36.55	21.5	45.20
500	11.8	27.58	15.3	36.65	19.1	45.25	23.9	56.00
630	14.8	43.51	19.3	58.55	23.9	72.40	30.0	89.20
710	16.7	55.29	21.8	74.70	27.2	92.30		

Design data

- Head loss : The Hazen Williams equation (C = 150) is used to calculate pipe head loss. This coefficient does not change for the lifetime of the pipe.
- Flow rate : When designing pipelines a flow rate of not more than 3 m/sec should

  be used for calculations.
- Temperature derating factor :

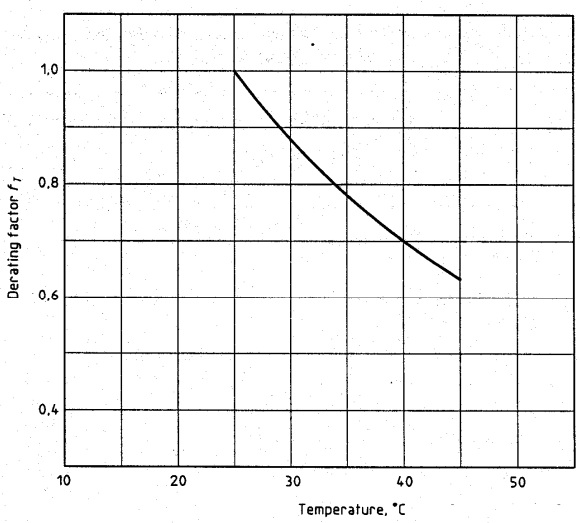

Figure 1 — Derating factor as a function of operating temperature

- Working pressure in bar as a function of temperature:
  (Reference DIN 8061)

	Temperature °C	Series 4 PN10
Water and harmless fluids to which rigid PVC is resistant	20	10
	40	6
	60	1
Harmful fluids to which rigid PVC is resistant	20	6
	40	2.5
	60	-
Fluids to which rigid PVC has limited resistance	20	4
	40	1