

Table 6.2 Manning's Coefficient of Roughness

The coefficient of roughness for use in Manning's formula for different materials presented in Table 6.2 may be adopted generally for design purposes unless local experimental results or other considerations warrant the adoption of any other lower value for the coefficient. For general design purposes, however, the value for all sizes may be taken as 0.013 for plastic pipes and 0.015 for other pipes.

Type of lining	condition	n
Glazed coating of enamel	In perfect order	0.010
	(a) Plane boards carefully laid	0.014
Timber	(b) Plane Boards inferior workmanship or aged,	0.016
	(c) None-plane boards carefully laid	0.016
	(d) Non-plane boards inferior workmanship or aged	0.018
	(a) Neat cement plaster	0.013
Masonry	(b) Sand and cement plaster	0.015
	(c) Concrete, Steel troweled	0.014
	(d) Concrete, Wood troweled	0.015
	(e) Brick in good condition	0.015
	(f) Brick in rough condition	0.017
	(g) Masonry in bad condition	0.020
	Stone work	(a) Smooth, dressed ashlar
(b) Rubble set in cement		0.017
(c) Fine, well packed gravel		0.020
Earth	(a) Regular surface in good condition	0.020
	(b) In ordinary condition	0.025
	(c) With Stones and weeds	0.030
	(d) In poor condition	0.035
	(e) Partially obstructed with debris or weeds	0.050
Steel	(a) Welded	0.013
	(b) Riveted	0.017
	(c) Slightly tuberculated	0.020
	(d) Cement Mortar lined	0.011
Cast Iron & Ductile Iron	(a) Unlined	0.013
	(b) cement mortar lined	0.011
Asbestos Cement		0.012
Plastic (Smooth)		0.011