Pipe roughness

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Surface roughness of inner pipe walls (see **Fig. 1**).

Fig. 1. Schematic view of inner wall pipe roughness

A typical inner wall steel pipe roughness is 0.045 mm.

Material	Conditions	mm	ft
Steel	sheet	0.05	1.6×10^{4}
	stainless	0.002	7×10^{6}
	rivet	3.0	1×10^{2}
	rusty	2.0	7×10^{3}
Iron	cast	0.26	8.5×10^{4}
	forged	0.046	1.5×10^{4}
	galvanised	0.15	5×10^{4}
Brass		0.002	7×10^{6}
Plastic		0.0015	5×10^{6}
Glass		0	0
Concrete	smooth	0.04	1.3×10^{4}
	rough	2.0	7×10^{3}
Rubber	smooth	0.01	3.3×10^{5}
Wod	plank	0.5	1.6×10^{3}

See also

Physics / Fluid Dynamics / Pipe Flow Dynamics / Darcy–Weisbach equation / Darcy friction factor / Surface roughness

References

https://neutrium.net/fluid_flow/absolute-roughness/