Scaling, Pitting and Leaching	Absence of scaling, pitting and leaching leads to full bore flow	Scaling, pitting and leaching lead to reduced bore flow	Severe scaling, pitting and leaching leads to reduced bore flow	Scaling, pitting and leaching may occur and reduce bore flow
Thermal Conductivity & Insulation Levels	Lower thermal conductivity reduces heat loss and requires reduced insulation levels	Extremely high thermal conductivity increases heat loss and requires higher insulation	Extremely high thermal conductivity increases heat loss and requires higher insulation	Higher thermal conductivity than CPVC; more heat loss and requires higher insulation levels
Bacterial Growth	Extremely low	More than that in CPVC	More than that in Copper	Higher than that in CPVC
Fire Resistance	LOI is 60%; hence does not catch fire or sustain burning	Being metallic, exhibits better resistance to fire	Being metallic, exhibits better resistance to fire	LOI is 18%; hence can easily catch fire and sustain burning
Installation	Easy through cold welding; requires less man hours. No electric/ heat source required	Requires highly skilled manpower and electric/ heat source	Extremely slow; requires more man hours	Jointing process is by heat fusion; requires greater skill and electric/ heat source
Leakage	Leak-free installation for life	Leak-free, provided carried out by highly trained manpower	Always susceptible to leakage from initial day of installation	Relatively leak-free provided skilled manpower is employed
Thermal Expansion	Lower; leads to lesser pipe expansion, lesser looping and offsets	Although thermal expansion is lower, the stress induced is far greater	Although thermal expansion is lower, the stress induced is far greater	Higher expansion leads to more looping/ offsets
Special Tools	Simple cutter or Hex-Saw Blade and CPVC solvent cement are adequate for 100% leak-proof joints and satisfactory plumbing	Requires special tools like metal cutting flame torch, solder, flux, etc. to carry out desired plumbing procedures	Requires heavy tools for pipe cutting, threading and fitting to carry out the desired plumbing	Requires special Electrical Heater to achieve the perfectly welded joint. Any failure results into wastage and poor plumbing
Range of Fittings	Wide range	Limited range, needs frequent cutting and welding	Limited range	—

Range of Fittings


TEE


FEMALE TEE BRASS THREADED


ELBOW 90°


COUPLER


REDUCING COUPLER


REDUCING TEE


UNION


REDUCING BUSH


BALL VALVE


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