

Water Piping Dissimilar Metals

2025 California Plumbing Code, Section 310.6 Dissimilar Metals; Section 604.1 Pipe, Tube, and Fittings

Section 310.6 Dissimilar Metals. Except for necessary valves, where inter-membering or mixing of dissimilar metals occurs, the point of connection shall be confined to exposed or accessible locations.

Section 604.1 Pipe, Tube and Fittings Materials used in the water supply system, except valves and similar devices, shall be of a like material, except where otherwise approved by the Authority Having Jurisdiction.

The code does not provide any information or guidance as to how to connect pipes of dissimilar metals. Interpretation by I.A.P.M.O. suggests that inter-membering when it does occur, shall be confined to exposed accessible locations. Please note that the code says exposed **or** accessible location. This interpretation suggests that, but does not specifically say a dielectric union is required.

Since this interpretation was based upon a question regarding change in materials assumed to be enclosed in a wall where intermixing of materials would occur above and below the brass shower valve, then such mixing would not be allowed.

For the City of Livermore, the following interpretation and standards are hereby set forth:

The connection of dissimilar metals in water piping systems and at water heaters shall be restricted to exposed **or** accessible locations as defined in the California Plumbing Code.

Note: Accessible locations shall include accessible attic or under floor areas that are provided with or without a removable access panel.

1. Dielectric unions are allowed in accessible locations.
2. At fully exposed locations a brass nipple of 6 inches or greater in length or a dielectric union may be used. Exposed is defined as open to visual inspection at all times, and not capable of being hidden by doors, storage, or appliances.

(Updated 1/26/2026)