

ALUMINIZED TYPE 2

Each of the layers of the duplex Type 2 coating contributes unique protective features. The protection of the two layers combined affords several advantages.

Advantages

- Performance of either coating layer independent of water scaling; immunity of both layers to the effects of soft water.
- Enhanced resistance of both coating layers to CO₂ corrosive effects.
- Enhanced resistance of both coating layers to erosion corrosion.
- Enhanced resistance of the Al-Fe layer to more common mild-to-moderate abrasive effects.
- Resistance to chloride/sulfate salts down to at least 1500 ohm•cm, oftentimes lower. Additional water/soil testing is advisable to determine suitability at resistivities below 1500 ohm•cm.
- Resistance to dry climate soils down to at least 1000 ohm•cm.
- Although 5 – 9 pH is the recommended environmental guideline, there actually is no upper pH limit for Type 2, as there is with aluminum, for the Al-Fe layer and the steel substrate are fully resistant to high pH.
- Type 2 is fully compatible with concrete headwalls and with cementitious backfills such as flowable fill and cement stabilized sand since the Al-Fe alloy layer alone is adequately resistant to high-pH cement alkalinity and to corrosive soil effects.
- Can be used where pH is between 4.5 – 5.0 if resistivity is over 5000 ohm•cm.

Application Limits

- Severe corrosive environments such as seawater, acid minewater or sanitary sewage are incompatible with Type 2.
- Gray, olive or blue clay soil portions of a highly acidic nature (pH = 2.5 – 3.5, typically) found in some heterogeneous soils of certain small geographical regions necessitate precautionary measures for various pipe materials. In these regions, an asphalt coating or a select granular fill is sometimes required to prevent direct contact with the highly acidic clay portions.
- Severe abrasive conditions necessitate use of supplemental invert pavement.
- De-icing salts are normally not a problem. Under certain conditions salt concentration can build up and cause problems for various pipe materials. If water/soil testing indicates a problem, protective measures are available.

