
TECHNICAL BULLETIN TB263

DRINKING WATER QUALITY

Product: Potable water distribution systems
Date: 31 January 2017

REHAU's PEXa pipe and EVERLOC+™ compression-sleeve fittings are third-party tested and certified for use where drinking water qualities meet the requirements of the EPA National Primary and Secondary Drinking Water Standards as well as the Guidelines for Canadian Drinking Water Quality by Health Canada.

The U.S. Safe Drinking Water Act and the Lead and Copper Rule require public water suppliers to provide noncorrosive drinking water to customers. However, irrespective of the material used, in rare and isolated cases, corrosion can occur even when the water quality levels are within the permissible range set forth by the EPA National Drinking Water Standards and the Guidelines for Canadian Drinking Water Quality by Health Canada. Some influencing factors on corrosion behavior are water disinfection process, pH levels, chloride content, sulfate content, and the use of an in-house water treatment system.

To evaluate the probability of corrosion for plumbing components in a potable water system, the licensed installing contractor must have practical experience within the region of intended use. Consultation with the local plumbing authority and local water authority regarding these experiences should occur before the selection and installation of potable plumbing components.

The corrosivity of water depends on a multitude of interdependent variables and there are no simple equations or indices for predicting the corrosion potential. It must be understood that corrosion is a phenomenon associated with the behavior of system components in their operating environment. Every material has a unique tendency to corrode or not corrode in a similar environment. However, with local knowledge of specific water characteristics and the environment in which the system components are installed, the design engineer and installing contractor can make proper material selections and can determine proper system operating parameters to minimize the potential for corrosion of the piping system.

If local conditions are known to cause corrosion issues, then a water quality expert with corrosion experience should be consulted.

Per REHAU *PEXa Limited Warranty*, REHAU's products shall be free of defects in material and workmanship. In order for the warranty to apply, products must not be subjected to damage or wear caused by abnormal operating conditions and the products must not be exposed to harmful chemicals, aggressive water conditions or any external influences that cause damage to the products.