

# AquaLINE® Waterproof Expansion Joint System for Potable and Drinking Water Applications

## DESCRIPTION

AquaLINE waterproof expansion joint system is used for waterproofing expansion joints in structures, where potable and drinking water is stored. These structures require that all materials used meet stringent health and contaminant requirements as set out by local regulatory agencies.

AquaLINE is specifically designed to accommodate movements, up to 2" [50 mm]. AquaLINE is installed on a prepared substrate with AquaLINE epoxy resin, which conforms health and contaminant requirements set out by local regulatory agencies.

AquaLINE is supplied directly to the job site in a roll with all detail work done and seamed together by a proprietary vulcanizing process. The vulcanization process utilized results in a monolithic and elastic joint. Vulcanization can also be done on site if so required.

The flat profile of the AquaLINE joint is unobtrusive to finishes, such as, special coatings, tiles, toppings etc. AquaLINE is manufactured from a proprietary elastomer which is chemically stable and has excellent resistance to the effects of prolonged water saturation. AquaLINE has been certified to the following standards:

### CERTIFICATION

#### Certifying Agency

Food and Drug Administration  
NSF 61 Standard Certification

## TYPICAL USES

AquaLINE waterproof expansion joint system is designed to be used for:

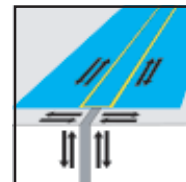
- Potable Water Tanks
- Potable Water Desalination Plants
- Potable Water Filtration Plants
- Potable Water Wells
- Sewage Treatment Plants



AquaLINE installed in potable water storage tank.

### EXPANSION/CONTRACTION RANGE DATA

The AquaLINE waterproof expansion joint system is designed to accommodate 3 way movements concurrently:



Movement	AquaLINE
Horizontal	± 2" [± 50 mm]
Vertical	± ¾" [± 20 mm]
Shear	± ¾" [± 20 mm]

### TECHNICAL DATA

Property & Test Method	Results
Hardness Shore A ASTM D-2240	55 ± 5
Lap Joint Strength ASTM D-816	Same as base material
Low Temperature Flex ASTM D-746	-70°F [-57°C]
Ultimate Elongation ASTM D-412	700 %
Tear Resistance ASTM D-624 Die C (minimum)	180 lbs/in [32.14 N/mm]
Water absorption ASTM D-570 (minimum)	< 0.001%
Puncture test - cone to CGSB 37.56 M (1995):	10 lbs. [44.5 N] min.
UV Exposure ASTM G-53 5000 hours	No cracks or crazing
Hydrostatic pressure capacity	29 psi [200 kPa]
Chemical Resistance to: Acids, Alkalis, Polar Solvents Saline Solutions	No effect

### PHYSICAL DATA

Property	AquaLINE
Thickness	0.087" [2.2 mm]
Roll Width	14" [355 mm]
Expansion Joint Gland Width	1½" [35 mm]
Roll Length	Endless
Weight	0.15lb/ft [0.23kg/m]
Color	Blue with yellow centering strips

## STORAGE

Store rolls on end, on original pallets or elevated platform. Protect from weather or store in an enclosed area.

## SURFACE PREPARATION

All surfaces must be dry and clean of debris, prior to application. The typical application is on a concrete surface. If the application is on new concrete, the following criteria define an acceptable condition of the concrete surface, concrete age 4 - 6 weeks, maximum allowable moisture content 3% and the concrete must be free of all scaling and bleed. Existing concrete surfaces must be free of all oils and debris. An acceptable surface is one that has been sand blasted. If the existing concrete surface has been wet and saturated with water, an epoxy primer must be used to ensure a good adhesion bond.

## APPLICATION

Identify the start installation location from the plan accompanying the roll of AquaLINE waterproof expansion joint material. Roll out the AquaLINE and allow it to relax prior to application. Make sure that the building expansion joint is clean and free of debris and has been packed with compressible batt insulation or a backer rod installed. Align the center line of the expansion joint gap or gap with the centre line of the AquaLINE waterproof expansion joint material, and verify the AquaLINE conformance to site details prior to the epoxy application.

### ***Installation in Epoxy Resin: (Recommended Application)***

AquaLINE is installed on a concrete substrate using an epoxy resin. The epoxy resin must be meet all local health and contamination requirements. Ensure that the epoxy resin meets current FDA and NSF approvals for potable water, consult the labeling on the epoxy resin for the latest approval information and material preparation guidelines.

The AquaLINE material is laid down in a prepared 1/8" [3 mm] thick bed of epoxy. The underside surface of the AquaLINE is NOT coated. The AquaLINE is pressed firmly into the epoxy. A smooth tool is recommended for pressing the AquaLINE into the epoxy resin bed. Once the underside surface of the AquaLINE has been laid into the epoxy resin bed, the top side surface is coated. A uniform layer 1/16" [2 mm] thick is applied to the top side surface of the AquaLINE, using a notched trowel as a feathering tool. All the exposed material must be covered. The epoxy must encapsulate wholly a minimum of 1 3/4" [40 mm] of the AquaLINE edging and extend a minimum of 3/4" [20 mm] onto the substrate. A typical quantity of epoxy resin used for a normal AquaLINE application is 8.6 oz./ft. [800g/m]. Once installed, the epoxy resin must be cured for at least 72 hours before submerging underwater. A flood test is also recommended prior to final use.