

# Trench-Breaker Technical Information

## Description

PolyLevel® Trench-Breaker is a two-component, water blown, nominal 2.2 pcf density, polyurethane foam system designed for exterior applications around utilities and pipelines.

PolyLevel® Trench-Breaker is applied as a liquid and then expands approximately 35 times in volume in 15 to 20 seconds. PolyLevel® Trench-Breaker exhibits low exothermic reaction temperature and therefore can be placed in continuous, successive lifts well beyond 2 inches in thickness without danger of charring or ignition.

## Typical Resin Properties

@77°F

	<u>Trench-Breaker R</u>	<u>Trench-Breaker A</u>
<b>Viscosity:</b>	800 cps	225 cps
<b>Unit Weight:</b>	9.3 lb/gal	10.25 lb/gal
<b>Shelf Life:</b>	6 months	6 months

## Mix Ratio

	<u>Trench-Breaker R</u>	<u>Trench-Breaker A</u>
<b>By Weight:</b>	100 parts	110 parts
<b>By Volume:</b>	100 parts	100 parts

## Typical Reaction Physical Properties<sup>(1)</sup>

@77°F

<b>Cream Time:</b>	4.5 sec
<b>Rise Time:</b>	17 sec
<b>Typical In-Place Density:</b>	2.2 pcf
<b>Tensile Strength (ASTM D1623):</b>	71 psi
<b>Resistance to Mold and Mildew:</b>	Excellent

(1)The above values are average values obtained from laboratory testing and should serve only as guidelines.

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## Application Information

### Equipment and Component Ratios:

PolyLevel® Trench-Breaker should be mixed by pour machines designed to mix urethane chemicals. Consult with your FSI Account Manager or Tech Support Representative for information regarding qualified metering equipment and the appropriate process parameters recommended. PolyLevel® Trench-Breaker **R** is connected to the **resin/polyol** pumps with PolyLevel® Trench-Breaker **A** being connected to the **isocyanate** pumps.

### Storage and Clean-up:

Shelf life is 6 months, in original, unopened factory containers, under normal storage conditions of 55° to 85° F. Do not store in direct sunlight. Keep drums tightly closed when not in use. Cured product may be disposed of without restriction. Excess liquid 'A' and 'R' material should be mixed together and allowed to cure, then disposed of in the normal manner.

### Safe Handling of Liquid Components:

Use caution in removing bungs from the container. Loosen the small bung first and let any built up gas escape before completely removing. Avoid prolonged breathing of vapors. In case of chemical contact with eyes, flush with water for at least 15 minutes and get medical attention. For further information refer to "MDI-Based Polyurethane Foam Systems: Guidelines for Safe Handling and Disposal" publication AX-119 published by the Center for the Polyurethanes Industry 1300 Wilson Blvd, Suite 800, Arlington, VA 22209.

### Caution:

Polyurethane products manufactured or produced from this liquid system may present a serious fire hazard if improperly used or allowed to remain exposed or unprotected. The character and magnitude of any such hazard will depend on a broad range of factors which are controlled and influenced by the manufacturing and production process, by the mode of application or installation and by the function and usage of the particular product. ***Any flammability rating contained in this literature is not intended to reflect hazards presented by this or any other material under actual fire conditions. These ratings are used solely to measure and describe the product's response to heat and flame under controlled laboratory conditions.*** Each person, firm or corporation engaged in the manufacture, production, application, installation or use of any polyurethane product should carefully determine whether there is a potential fire hazard associated with such product in a specific usage, and utilize all appropriate precautionary and safety measures.

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