

# TSW - Insta-Set POLYURETHANE SYSTEM

## Description

TSW Insta-Set is a two-component polyurethane system that contains no volatile, ozone depleting or hazardous blowing agents. When properly mixed at a ratio of one to one, the system will expand to approximately 25 times its initial volume to create a rigid, closed cell foam with high physical properties, resistance to water and chemical attack and long term durability. The fast reactivity of the system is used to stop high water flows.

## Typical Applications

- Concrete Dams
- Tunnels
- Earthen Dams
- Elevator Pits
- Water related Facilities
- Waste Treatment Plants
- Storm Water Systems
- Underground Vaults
- Manhole Facilities

## Advantages

- 100 % solids
- Expands up to 25 times initial volume
- Excellent resistance and durability
- Outstanding adhesion
- Non-hazardous shipping
- Non-flammable
- Cures inert, non-toxic, permanent

## Typical Information

Physical Properties - Liquid			
	Insta-Set "	Insta-Set "B"	Test Method
Viscosity	250 cps	1500 cps	ASTM D-4016
Specific Gravity	1.23	1.10	ASTM D-1475
Color	Dark Amber	Light Amber	
Flash Point	>250°F	250°F	ASTM D-92
Physical Properties - Cured			
Compressive Strength	40 psi		ASTM D-1621
Tensile Strength	75 psi		ASTM D-1623
Shear Strength	30 psi		ASTM D-732
Water Absorption	<2% (by volume)		ASTM D-2842

## Typical Reaction Profile

At 77° F the expansion begins in under 10 seconds and is complete in approximately 20 seconds when mixed at a ratio of one to one by volume. At 50° F the expansion time is complete in approximately 35 seconds.

## Standard Packaging

TSW Insta-Set is available in 250 gallon totes, 50 gallon drums, 5 gallon pails and 600 mL dual cartridges.

**Read and understand the SDS prior to use.**



**Application Equipment:** Contact [www.tri-statewaterstoppers.com](http://www.tri-statewaterstoppers.com), LLC for equipment recommendations for the particular application and conditions.

**Personal Protection:** Read SDS for complete details. For professional use only. Avoid breathing vapors – use in well-ventilated area only or use self-contained respiratory protection in confined spaces. Avoid skin contact – wear protective gloves. Avoid eye contact – wear eye protection. Do not ingest.

**First Aid:** In case of eye contact, flush with large amounts of water and get medical attention. For skin contact, wipe excess liquid from skin and wash with soap and water. If breathing is difficult, give oxygen and get medical attention.

**Safety Precaution:** During the chemical reaction, polyurethane products release heat via an exothermic reaction. When polyurethane products are applied in substantial quantities, exothermic reactions may generate enough heat to become a fire hazard. All necessary precautions should be taken to avoid the creation of a situation in which a fire could occur. Contact [www.tri-statewaterstoppers.com](http://www.tri-statewaterstoppers.com), LLC for further information.

**Storage and Shelf Life:** Product is moisture sensitive. Store in original sealed containers at temperatures between 60°F and 90°F (15°C-32°C). Opened containers must be handled properly to prevent moisture contamination. Shelf life is 12 months when properly stored.

**Clean-Up of Spills or Leakage:** With adequate ventilation and appropriate personal protective equipment, cover the spill area with absorbent material such as clay, or vermiculite and transfer to metal waste containers. DO NOT RESEAL CONTAINER AS REACTION OF CONTAMINATED MATERIAL CAN CREATE PRESSURE. Wash area with decontamination solution (5-10 % solution of sodium carbonate). Dispose of waste in accordance with Federal, State and local regulations.

**Shipping Information:** Shipping Class USDOT Class 55; USDOT Hazard Classification: Non-Hazardous.

**Warranty Information:** This limited warranty is limited to the replacement of the materials which are defective. [www.tri-statewaterstoppers.com](http://www.tri-statewaterstoppers.com), LLC makes no other warranty, expressed or implied, and makes no warranty of merchantability or fitness for a particular purpose. This limited warranty does not include any transportation charges or costs of installation or any liability for direct, indirect, consequential, or punitive damages or delay, whether or not the undersigned has been advised of such claims. THE FOREGOING LIMITED WARRANTY IS THE SOLE WARRANTY FOR THE PRODUCT. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

**Physical Property Values:** PLEASE NOTE, this Technical Data Sheet is intended as a *general guide* to provide assistance regarding typical physical characteristics of the product. However, the specific values are affected by various factors, including, but not limited to, ambient temperature, water temperature, humidity, water pH, reaction under confinement, and the presence of chemicals or debris in the reaction area. Applicators are encouraged to perform sample tests with the variables found on site to get the best possible indication of the product's physical properties for the specific job.

