# TrafficGuard™ JS

## TWO-COMPONENT ELASTOMERIC SEALANT

## TECHNICAL DATA SHEET FOR PROFESSIONAL CONTRACTOR USE ONLY

## DESCRIPTION

**TrafficGuard JS** is a 2-component elastomeric sealing polymer system designed to act as a crack and joint filler. This material provides exceptional adhesion characteristics and fast cure times. It is highly chemical resistant, insensitive to water, abrasion resistant and remains thermally stable in a range of -20°F (-29°C) to 250°F (125°C). TrafficGuard JS is used in cracks and joints on both concrete and asphalt roadways, bridge decks, expansion joints and may also be used in roadway repairs.

## FEATURES

- **Installation Friendly** with low viscosity formula and easy flow for application with equipment, by hand or cartridge gun.
- **Self-Leveling** properties that allow for easy applications and smooth finished joints.
- **Durable** with a tough abrasion and chemical resistant exterior and flexible for expansion and contraction greater than 50% in joints.
- **Quick Return** to open traffic and working operations.
- **Resistant** to weather and water.
- **Technical Service** and personal respect from industry professionals

## TYPICAL USES

- Concrete and Asphalt Roadways and Bridge Decks
- Parking Decks and Structures
- Precast Structures
- Industrial and manufacturing facilities
- Above and below grade structures
- Submerged structures

## PACKAGING & COLORS

- Standard packaging sizes of 5-gallon pails and 50-gallon drums
- Standard Colors – Concrete gray and back

## SHELF LIFE AND STORAGE

12 months in factory delivered unopened drums. Keep away from extreme heat, cold, and moisture. Maintain at a proper storage temperature of 60°F - 80°F. The components used in TrafficGuard JS have been specially formulated to withstand low temperature applications. The material can be stored at temperatures as low as 10°F with no gelation of the components. However, it is recommended to warm the material to a minimum of 60°F before application.

## ADHESION

| TYPICAL SUBSTRATES PER ASTM D4541 ELCOMETER | | |
|---|---|---|
| Concrete – no primer | >400 psi | Cohesive failure; excellent bonding |
| Steel – Clean | >1000 psi | Cohesive failure; excellent bonding |
| Wood – Dry, Dust Free | >350 psi | Wood failure; excellent bonding |

## TECHNICAL DATA

| PHYSICAL PROPERTIES | TEST METHOD | VALUE |
|---|---|---|
| **Tensile Strength** | ASTM D412 | 1500 psi |
| **Elongation** | ASTM D412 | 500% |
| **Modulus** | ASTM D412 | 1400 |
| **Pensky-Marten Taber Abrasion** | ASTM D4060 | 20.5 |
| **Hardness (Shore A)** | ASTM D2240 | 85 |
| **Tear Strength** | ASTM D412 | 450 |
| **Salt Water Spray** | ASTM B117 | Pass 500 hours |
| **Seawater Immersion** | ASTM D870 | Pass 300 hours |
| **Flexibility** | ASTM D1737 | Pass 1/8" mandrel: |
| **Flash Point** | Penski-Martin | >200°F |
| **Gel Time** | | <5 Minutes |
| **Tack Free Time** | | <10 Minutes |
| **Open to Industrial Traffic** | | <30 Minutes |
| **Viscosity A Side CPS** | Zahn #2 | >200°F |
| **Viscosity B Side CPS** | Zahn #2 | >1200°F |

## COVERAGE CALCULATIONS:

**COVERAGE RAGE = FEET/GALLON *DOES NOT INCLUDE OVERFILLING**

| JOINT DIMENSIONS, INCHES | | | | | |
|---|---|---|---|---|---|
| **DEPTH, INCHES** | 1/8 | 1/4 | 1/2 | 3/4 | 1 |
| 1/8 | 1230 | 615 | 308 | 205 | 154 |
| 1/4 | 615 | 308 | 154 | 102 | 77 |
| 1/2 | 308 | 154 | 77 | 51 | 38 |
| 3/4 | 205 | 103 | 51 | 34 | 25 |
| 1 | 154 | 77 | 38 | 25 | 19 |
| 1 1/2 | 205 | 51 | 25 | 17 | 12 |
| 2 | 77 | 38 | 19 | 12 | 9 |
| 3 | 52 | 25 | 12 | 8 | 6 |

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## APPLICATION EQUIPMENT

TrafficGuard JS may be applied using a 1:1 plural component pump, hand mixing, or by plural component cartridges. This proportioning unit must be capable of supplying the correct pressure and heat for the required hose length on a consistent basis. This characteristic is mandatory to apply this elastomer in a consistent, efficient manner. When hand mixing, care must be taken to mix and pour quickly as TrafficGuard JS designed to gel quickly. For small jobs, TrafficGuard JS is available in cartridges.

## APPLICATION

### PREPARATION

TrafficGuard JS requires the surface to be clean/dry and free from contamination. Normally, chipping or blasting is sufficient to obtain proper bonding. Mild detergent may be used to remove oils and dirt. Rinse thoroughly and blow dry. Surface application temperature may range from 20°F (-29 C) to 150°F (65 C). This product may be applied with cartridge gun, hand mixed or plural component liquid pumping equipment. Gel time range at 75°F (24 C) is 4min. Apply TrsficGuard JS in a heavy over-filling quantity, let cure for 30 minutes prior to shaving level with surface. Heated material is not required if ambient temperature is above 70°F (21 C). Store materials in dry environment. For long storage, displace air in drums with nitrogen. Always wear safety gear when applying isocyanate/polyol resin-based systems.

### RANDOM FRACTURES

Remove all existing sealant and joint backer. Any moisture present in the joint should be eliminated prior to installation. Using a diamond blade saw, saw the joint vertically to 90° angles to a minimum depth of 1 inch. The joint should be widened slightly to ensure adhesion to freshly opened concrete. Care should be taken not to adversely affect adhesion by "burnishing" the sides of the joint with a grinder. After sawing or grinding, care should be taken that minimal amounts of dust and debris are left over in the joint. The joint should be vacuumed using a common "shop-vac" to remove as much dust and debris as possible. In some cases, closed cell joint backer can be used to prevent "sinkers" or continuously running material. It should be noted that the use of joint backer does not provide optimum joint protection. It may be necessary to stop "sinkers" by making several passes over the joint and allowing the material to cure in between passes. JS and Joint Seal Flex Vertical should be placed in the joint full depth, overfilled, and allowed to cure for a minimum of ten minutes before shaving level with the concrete.

### APPLICATION NOTES

It is very important to maintain constant pressures while installing TrafficGuard JS with a plural component pump. A variation in pressures can result in loss of properties, poor color retention and bubbling. Hose heat is not required at ambient temperatures. Low temperatures may require the use of hose heat to improve flow ability.

### REPAIRS AND MAINTENANCE

Repairs to divots caused by unforeseeable abuse can be repaired very easily. The damaged area should be removed down to sound sealant and concrete. It may be necessary to remove existing sealant with a blade or pneumatic saw and should include removal of all damaged materials to the fresh concrete. The damaged area should be squared to 90° and solvent wiped with acetone. TrafficGuard JS should be placed in the damaged area.

### ADDITIONAL RESULTS

In certain cases, it may be recommended by the manufacturer to utilize a different formulation speed or hardness depending upon the specific needs of the application. The TrafficGuard JS series offers several different hardness readings from 85 (Shore A) to 95 (Shore A). The physical properties, gel times, and reaction times vary with the formulation and may be adjusted as required.

### NEW CONCRETE: INTERIOR CONTROL JOINTS/EXPANSION JOINTS

The concrete should be allowed to cure for a minimum of 60 to 90 days. Any moisture present in the joint should be eliminated prior to installation. Using a diamond blade saw, saw the joint vertically to 90 ° angles to a minimum depth of 1 inch. The joint should be widened slightly to ensure adhesion to freshly opened concrete. Care should be taken not to adversely affect adhesion by "burnishing" the sides of the joint with a grinder. After sawing or grinding, the joint should be vacuumed using a common "shop-vac" to remove as much dust and debris as possible. In some cases, closed cell joint backer can be used to prevent "sinkers" or continuously running material. It should be noted that the use of joint backer does not provide optimum joint protection. It may be necessary to stop "sinkers" by making several passes over the joint and allowing the material to cure in between passes. JS should be placed in the joint full depth, overfilled, and allowed to cure for a minimum of ten minutes before shaving level with the concrete.

### AGED CONCRETE: INTERIOR CONTROL JOINTS/EXPANSION JOINTS

Remove all existing sealant and joint backer. Any moisture present in the joint should be eliminated prior to installation. Using a diamond blade saw, saw the joint vertically to 90 ° angles to a minimum depth of 1 inch. The joint should be widened slightly to ensure adhesion to freshly opened concrete. Care should be taken not to adversely affect adhesion by "burnishing" the sides of the joint with a grinder. After sawing or grinding, care should be taken that minimal amounts of dust and debris are left over in the joint. The joint should be vacuumed using a common "shop-vac" to remove as much dust and debris as possible. In some cases, closed cell joint backer can be used to prevent "sinkers" or continuously running material. It should be noted that the use of joint backer does not provide optimum joint protection. It may be necessary to stop "sinkers" by making several passes over the joint and allowing the material to cure in between passes. JS should be placed in the joint full depth, overfilled, and allowed to cure for a minimum of ten minutes before shaving level with the concrete.

### SPALLS/BLOWOUTS

Remove all existing materials from the spall or blowout. Any moisture present in the spall should be eliminated prior to installation. Using a diamond blade saw, saw the joint vertically to 90° angles to a minimum depth of 1 inch. The spall should be widened slightly to ensure adhesion to freshly opened concrete. Care should be taken not to adversely affect adhesion by "burnishing" the sides of the joint with a grinder. After sawing or grinding, remove residual dust and debris. Fill the spall/blowout with dry rock filler (i.e. dry pea gravel if required) to one inch of the surface. Fill the remaining void to surface level with TrafficGuard JS.

## LIMITATIONS

TrafficGuard JS is an aromatic elastomeric sealant. While the physical properties may not be affected, the elastomer could yellow and chalk with exposure to UV or Hg vapor light. It is highly recommended to use a dark color for any application requiring color stability. If color stability is mandatory, contact the manufacturer for recommendations. The chemical resistance chart should be consulted prior to any application. TrafficGuard JS is designed to protect the edges of concrete control and expansion joints. TrafficGuard JS may pull away from the joint edges if too much slab movement is encountered. This characteristic allows for easy replacement and to alert the property owners that movement is present.

## CLEAN-UP/DISPOSAL

The uncured isocyanate and resin portions should be mixed together. This creates a non-hazardous cured product that may be disposed of without restriction. "Drip-free" containers should be disposed of in accordance with local, state and federal laws.

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