

# Technical Data Sheet



**W V C O**

Willamette Valley Company

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Partnering through service,  
innovation, and integrity



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# SPIKEFAST® CTR-100

## Concrete Railseat Repair Material

### DESCRIPTION

SPIKEFAST® CTR-100 is specifically designed to remediate railseats on concrete ties. This durable, 100% solids polyurethane is designed to adhere, seal, and extend the service life of a railseat. CTR-100 is dispensed from equipment engineered for efficient metering/mixing, pressure and temperature control. CTR-100 can be applied in a wide range of outdoor conditions.

### WHERE TO USE

- **Concrete Railseats**—repair worn and abraded railseats
- **Sealing Concrete Surfaces**—fill cracks and defects
- **Beneath Tie Pad**—adhere pad to railseat

### FEATURES AND BENEFITS

- **Quick Cure Times**—high production rates
- **Restore Original Geometry**—proper cant and gauge
- **Reduced Head Deflection**—greater longitudinal rail restraint
- **Third-Party Cycle Tested**—passed over 3-million cycles

### PACKAGING

200-gallon totes (758 L)  
50-gallon drums (190 L)  
5-gallon buckets (19 L),  
15-oz. cartridges (450 ml)

### COLOR

Dark Orange

### YIELD

38 Railseats (45 in<sup>2</sup> x 0.125 in.) per gallon.  
11 Railseats (290 cm<sup>2</sup> x 0.32 cm) per liter.

### SHELF LIFE

6 months in containers and 12 months for cartridges  
when properly stored.

### STORAGE

Store in original container and sealed until ready for use.  
Reseal used containers and store in an upright position.

## TECHNICAL INFORMATION

### Typical Properties

<b>VOC</b> , lbs/gal (g/L), ASTM D 2369	0
<b>Viscosity</b> , cps, ASTM D 4878, Resin / Iso	3300 / 200
<b>Hardness</b> , Shore D, ASTM D 2240	80
<b>Set time</b> , sec, 70°F (20°C)	60 or 120 seconds – Bulk Containers 120 seconds - Cartridges (Temperature dependent)
<b>Service temperature</b> , ° F (° C)	-40 to 180 (-40 to 82)

### Processing Parameters

<b>Ratio by volume</b> , Resin to Iso	2 to 1
<b>Meter equipment</b>	Plural component
<b>Static mixer</b>	13-32 bulk, 13-24 cartridge
<b>Typical application volume</b> , in <sup>3</sup> (cm <sup>3</sup> )	5.6 in <sup>3</sup> (92 cm <sup>3</sup> )

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## APPLICATION

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SPIKEFAST® is supplied in a ready-to-use form that requires proper mixing and dispensing. Care should be taken that SPIKEFAST® is stored properly, does not become contaminated with foreign matter, and is applied according to WVCO recommendations.

### METER DISPENSED

#### PROCESSING

For meter applied applications contact Willamette Valley Company Precision Technologies Division for equipment recommendations. Willamette Valley Company's metering equipment is specifically engineered for processing SPIKEFAST® to generate the proper mix ratio, pressure, and temperature.

1. Test the meter operation before dispensing onto railseat/tie defect.
2. Place mix-tube on nozzle and tighten retaining nut over the mix-tube. Use a 13-mm diameter mixer with 32-elements.
3. Dispense in test container to verify CTR-100 material sets up uniformly in less than 4-minutes.

#### APPLICATION

1. Dispense CTR-100 onto the railseat/tie defect.
2. Fill railseat/tie defect from one side to the other in a uniform motion. Avoid over filling.
3. Top off railseat/defect as necessary.
4. Flush mix-tube as necessary if dispensing stops. Dispense mix-tube flush outside the railseat/tie defect when resuming tie remediation.
5. Material may solidify in the mix-tube if application stops for more than 20-30 seconds. Remove spent mix-tube and replace with a new mix-tube as necessary.
6. Periodically inspect applied material to ensure the material is solidifying and uniform. If material is non-uniform; stop, change mix tube and check meter operation for compliance.

NOTE: Material will set in approximately 60 seconds at 70°F (21°C). Colder temperatures will slow the set. Warmer temperatures will speed the set.

### CARTRIDGE DISPENSED

#### PROCESSING

1. For colder conditions it is recommended to put the product in a warm area at approximately 70°F (21°C) for 24 hours before using. This will enhance the flow and cure time.

2. Use a 13-mm diameter with 24-element static mix tube.

#### CARTRIDGE APPLICATION

1. Use a 2:1 (resin:iso) hand applied dispenser and ensure that the dispenser is the proper size and type. Manual, cordless, and pneumatic applicator guns all work adequately. Pneumatic and cordless applicators provide the most consistent results.
2. Keep the cartridge upright during assembly.
3. Remove the retaining nut and caps from the cartridge.
4. Place mix-tube on cartridge nozzle and hand tighten the retaining nut over the mix-tube.
5. Check alignment of plungers inside cartridge; level if necessary.
6. Keep cartridge upright and load into applicator gun.
7. While pointing cartridge upright, trigger handle to remove any air trapped in cartridges.
8. Point cartridge over waste container and dispense initial amount of material (20-40mL).
9. Fill railseat/tie defect from one side to the other in a uniform motion. Avoid over filling.
10. Top off railseat/tie defect as necessary.
11. Material may solidify in the mix-tube if application stops for more than 20-30 seconds. Remove spent mix-tube and replace with a new tube to finish cartridge.

Contact a Willamette Valley Company Representative for more information on product and equipment instructions, recommendations, and full-service warranty.

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## HEALTH AND SAFETY

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Before handling, you should become familiar with the Material Safety Data Sheet (MSDS) regarding the risks and safe use of this product. To obtain an MSDS please call 800 333 9826 or send an email to: [msds@wilvaco.com](mailto:msds@wilvaco.com).

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