








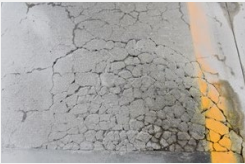





## Bridge Deck Pothole Repair with Sikadur 52<sup>1</sup>

*Note: Apply when ambient temperatures are  $\geq 65^{\circ}\text{F}$*

<sup>1</sup> <https://usa.sika.com/en/construction/repair-protection/multi-purpose-epoxies/overlays/sikadur-52-us.html>

Required		As Needed	
			
			
<b>Sikadur 52</b>	<b>Drill</b>	<b>Mixing Paddles</b>	<b>Air Compressor</b>
<b>Sand</b>	<b>Pea Gravel</b>	<b>Blowtorch</b>	
<b>Step 1:</b>	Wear proper safety gear (e.g., safety glasses, gloves).		
<b>Step 2:</b>	The concrete surface in a pothole must be clean and sound (e.g., no dirt, oil contamination). Use an air compressor or leaf blower to clean the area. Remove foreign material (e.g., asphalt) within the repair area. Rust must be removed from exposed steel bars.		
<b>Step 3:</b>	The concrete surface and aggregate used to fill the pothole must be dry. Use a blowtorch or hot air blowers to dry them. The same equipment can be used to keep the concrete and aggregate (when used) warm to reduce epoxy/epoxy mortar set time.		
<b>Step 4:</b>	Following manufacturer specifications, mix the two-part epoxy using a mixing paddle for 3 minutes on low speed until it is uniformly blended.		
<b>Step 5:</b>	<p><b>Type 1: Epoxy Repair</b> <i>Potholes with cracked concrete</i></p> <p><b>Type 1 Video</b></p>    <p style="text-align: center;"><b>Cracked Concrete</b>      <b>Cracked Concrete Prior to Spalling</b></p> <p>1.1 Gravity feed the epoxy over the cracked area. 1.2 Let the epoxy seep through the cracks, and periodically fill them until the epoxy level does not drop.</p>	<p><b>Type 2: Epoxy Mortar Repair</b> <i>Potholes fully or partially void of concrete</i> <i>(For areas greater than 4'x4', traditional rapid-set mortar repairs maybe more economical)</i></p> <p><b>Type 2 Video</b></p>    <p style="text-align: center;"><b>Partially Void of Concrete</b>      <b>Damaged Box Beam</b></p> <p>2.1 Apply epoxy so it covers the bottom of the pothole and seeps into existing cracks. 2.2 Fill void areas with #8 aggregate or pea gravel (graded with maximum size of 3/8" to 1/2"). 2.3 Gradually spread epoxy over the repair area. 2.4 Let the epoxy seep through the aggregate, and periodically fill until the epoxy level does not drop.</p>	
<b>Step 6:</b>	Spread sand over the application area before the epoxy reaches initial set. <sup>a</sup> Graded sand (e.g., Class 1 sand) is preferable but not required. <i>Note: 15-minutes after epoxy application, traffic is permitted if the pothole is covered by a road plate, with a silicon baking paper in between, for a period 12 hours.</i>		
<b>Step 7:</b>	Let the epoxy or epoxy mortar cure for 1 hour following initial set, or from the time it is no longer tacky, before opening the lane to traffic. <sup>a,b</sup>		
	<p><sup>a</sup> For Epoxy, or Type 1 repairs in Step 5, initial set is when a 1/4 inch rod can be pressed onto its surface and it does not penetrate. Under laboratory conditions at 70 °F, Sikadur 52 epoxy achieved initial set in 50 minutes.</p> <p><sup>b</sup> For Epoxy mortar, or Type 2 repairs in Step 5, initial set is when it loses its tackiness. Under laboratory conditions at 70 °F, Sikadur 52 epoxy mortar achieved initial set in 2 hours.</p>		