

Rapid Epoxy Case Study

Cracked Ceramic Teapot Lid Repair

A ceramic teapot lid cracked into two after being dropped on a hard floor is glued back together in a permanent repair using Rapid 5 Minute Epoxy



The teapot lid cracked into two separate pieces. The break joint was a complex shape, meaning the repair needed an epoxy adhesive with a long enough work time to be applied rather than the instant bond of a traditional superglue



The two parts were pushed together once one side of the break had been coated with epoxy. A five minute cure time allowed the pieces to be adjusted for a seamless fit



The completed repair of the broken teapot lid. A full cure was achieved in one hour

Defect

The ceramic teapot lid had been damaged when accidentally dropped onto a hard floor. Fortunately, it broke into two clean pieces rather than shattering into many.

This meant it could be repaired relatively easily, using an adhesive with a long enough work time to be applied along the complex shape of the break, which would not cure before the pieces could be fitted together accurately.

Solution

Sylmasta Rapid 5 Minute Epoxy was selected for the repair. Epoxy offered the longer cure desired and a stronger bond than normal superglue.

The two components of Rapid 5 Minute were extruded from the cartridge and mixed with a stirrer. After 30 seconds, the epoxy was spread over the entire break joint of the smaller teapot lid piece.

Once the adhesive had been applied, the two parts of the lid were pressed together. The five minute work time meant they could be adjusted for a seamless fit, avoiding the risk of instant cure and misalignment that would have come with superglue.

The lid continued to be pushed together for five minutes for the epoxy to form a functional cure. It was then left undisturbed for 30 minutes to achieve maximum properties.

Result

After one hour, a full cure had been achieved and the teapot lid could be used again

The structurally strong bonds provided by Rapid 5 Minute will last for a very long time - providing the lid is not dropped onto a hard floor again.

