

BALL PLUG TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
• Resin compound is cloudy or crystalized	• Resin too cold or sat dormant too long.	• Put enclosed resin container upright in a pan of water and place in oven for 2 hours at 125 degrees Fahrenheit. Otherwise, place resin jug in hot water. Refresh hot water every 30 minutes until crystalized material has been restored.
• Resin pump clogged	• Resin crystalized inside pump.	• Keep pump in resin component. Warm resin component in hot water for 2 hours. If hot water is not accessible, put resin in pan and place in oven for 2 hours at 125 degrees Fahrenheit. Be sure water does not get inside resin bottle or pump. The moisture will alter the resin.
• Coloring fades or burns out of plug.	• Excessive heat.	• If using external heat source, remove it. • Check the room temperature. For best results, use ball plug at 70 - 75 degrees fahrenheit. • Check mixing ratio. Excessive heat could mean there is too much hardener in the mixture.
• Shrinkage	• Excessive heat	• If using external heat source, remove it. • Check the room temperature. For best results, use ball plug at 70 - 75 degrees fahrenheit. • Check mixing ratio. Excessive heat could mean there is too much hardener in the mixture.
	• Routing before plug was completely cured.	• Allow the plug to cure for the recommended time period before routing the crown of plug. Premature routing causes the plug to heat and expand, then shrinking as it cures completely.
• Chipping, cracking, brittle plug	• Excessive heat	• If using external heat source, remove it. • Check the room temperature. For best results, use ball plug at 70 - 75 degrees fahrenheit. • Check mixing ratio. Excessive heat could mean there is too much hardener in the mixture.
• Air bubbles	• Violent mixing.	• After dispensing the proper amount of components, mix together in a figure eight pattern for at least 2 minutes.
	• Plug cured too fast	• If using external heat source, remove it. • Check the room temperature. For best results, use ball plug at 70 - 75 degrees fahrenheit. • Check mixing ratio. Excessive heat could mean there is too much hardener in the mixture.
• Edge chipping	• Bevel of hole not drilled out or cleaned prior to plugging.	• A drill bit slightly larger than hole to be plugged should be used to cut away the bevel on the hole. Then clean in and around the hole prior to plugging.
• Voids in plug	• Too fast cure.	• If using external heat source, remove it. • Check the room temperature. For best results, use ball plug at 70 - 75 degrees fahrenheit. • Check mixing ratio. Excessive heat could mean there is too much hardener in the mixture.
	• Violent mixing.	• Mix plug components together in a figure eight pattern for at least 2 minutes.
	• Mixed plug began to gel before poured into ball.	• Pour plug into hole immediately after mixing.
• Soft spot in plug	• Improper or inadequate mixing.	• Follow manufacturer's mixing instructions.
	• Improper ratio of resin to hardener.	• The proper ratio of resin compound to hardener is 3:1. Check pumps by dispensing one (1) pump of resin compound into one cup and three (3) pumps of hardener into separate cup. If the ratio is correct, the amount of material in each cup will be equal. <u>Do not mix components using this 1:1 ratio.</u>
• Separation along seam of plug and ball.	• Failure to completely clean the interior surface of the hole to be plugged.	• Clean in and around the hole prior to plugging.