



## A Friendly Reminder: Be careful with your new Carboy

We really hope that this small article can save the lives of many carboys. Glass is great for home brewing because it is less likely to be affected by oxygen than the plastic alternative. Due to their smooth surfaces, glass carboys are easy to clean and very sanitary because there is less space to harbor bacteria. This is extremely attractive to Home Brewers like yourself, BUT glass is fragile and susceptible to “Thermal Shock”. Most people don’t know about this until it’s too late. Be careful when you are taking your carboy from hot to cold temperatures and vice versa.

### What is Thermal Shock?

Thermal shock occurs when the temperature of the glass goes from COLD to HOT very quickly. This causes different parts of the glass to expand and contract by different amounts. When different parts of the glass are expanding at different rates in a short amount of time, it will cause a large amount of stress on the glass. This could cause it to CRACK or even BREAK APART.

For Example: This could happen if you have HOT liquid in your carboy and it comes in contact with a COLD granite countertop or tile floor.

### How could I prevent this?

If your carboy contains hot liquid, we suggest to set it on a surface that won’t cause any part of the carboy to rapidly cool. Set a large towel down and if you can, fold it until it is the same size as the bottom of your carboy. When it is set on this material, the outside of the glass will have time to acclimate to the cooler temperature of the room, and be very unlikely to experience thermal shock.

### Glass is Fragile!

Did you know that glass is harder than steel? Unfortunately, being very hard makes it brittle. Steel, being a ductile material, is able to ‘round off’ the tips of cracks, allowing the steel to bend slightly and increase its load-bearing ability. Brittle materials are bad at deforming to round off cracks so putting stress on them by setting them down too hard can cause sharp-edged cracks that spread quickly, causing the material to break.

### How could I prevent this?

Avoid physical stress to glass. Handle it carefully, using carrying straps whenever possible. Set it down gently. Move it around slowly. Keep it away from shelf edges and place it in the middle of surfaces so that it is less likely to be bumped by passersby.

### In Conclusion

We want your brewing experience to be safe and fun! Please handle all glass with great care. We hope that this will help and hopefully prevent broken carboys in the future. Happy Brewing!

