



Hugh the Ducky's



Using AntiFreeze

“In-Floor Heating Made Simple”

Antifreeze is only recommended to use with the HUG Hydronics in-floor heating system if your system is at risk of freezing. Antifreeze can eliminate the risk of a freeze busting the pex pipes on your system down to -70 degrees F.

The only antifreeze recommended to use with the HUG Hydronics in-floor heating system is polypropylene Glycol mixed for use in HVAC systems. We sell only the approved stuff in our store.

However, Antifreeze does have a few drawbacks. Antifreeze reduces the system's ability to effectively transfer heat, often meaning you will have to heat it higher to warm your floor to the same temperature compared to using all water in your system.

Antifreeze also needs yearly maintenance. We will cover that here.



5 gallons of Approved Antifreeze in our store

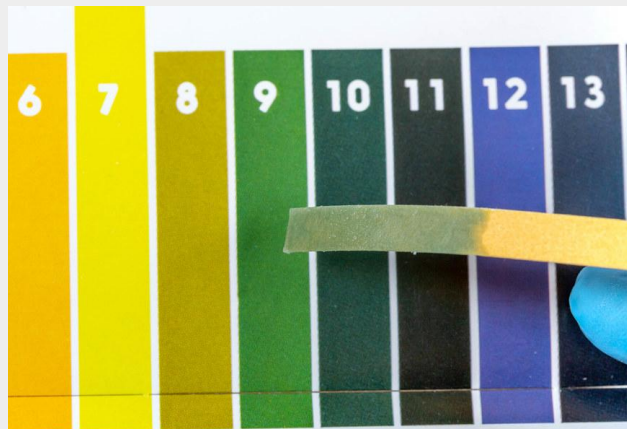


Choosing/Mixing your Polypropylene Glycol

Your carefully chosen antifreeze should be mixed with distilled water to the needed concentrations, as instructed by the antifreeze directions.

Distilling the antifreeze to less than $\frac{1}{3}$ concentration can create the perfect medium for mold growth, so make sure you mix according to directions to keep a high enough concentration.





This test strip's color matches somewhere between 8 and 9, so the pH level is fine and doesn't need adjustment.

Maintenance for a HUG Hydronics System with antifreeze use

Check your Glycol yearly by using a pH test strip. Just dip it into the liquid in the tank, Read it by comparing the color to the chart with the test strips.

The pH level should range between 8.0 and 10.0.

Any fluid with a pH below 7.0 should be replaced.

For fluids between 7.0 and 8.0, adjustments can be made using a 50 percent solution of sodium hydroxide or potassium hydroxide. HUG Hydronics will soon offer pH adjustment kits for quick and easy use.

Every 3-5 years the glycol degrades enough that it will have to be completely replaced. You will know it is time if the pH is lower than 7.

To Change out your Antifreeze:

1. Lift the return hose from the back of the system, put it into a bucket or container you have ready to receive the old glycol.
2. Move the jumper for that pump to “purge.” Let it purge for **x amount of time**. Then return the return hose to the back of the tank.
3. As the tank level drops, add fresh glycol mix to your tank.
4. Repeat with each pump, until most of the old antifreeze is out and new antifreeze is in. Mixing will occur.
5. Test the pH level. If the pH level is above 8, you are good to go, if it is too low, empty more of the old antifreeze and add more of the new.

Safe Storage & Disposal

DO keep new and waste antifreeze in clean, closed, and labeled containers that are in good condition with no leaks or defects.

DO NOT store glycol in old food or beverage containers, or store where pets and children could access the antifreeze.

DO clean up any spills immediately and report the spill when required.

DO NOT mix with other wastes (including other antifreeze chemicals) unless the recycler will accept that mixture.

DO store glycol in a well-ventilated area.

DO NOT pour glycol down the drain, into a septic system or onto the ground for disposal.

DO recycle or dispose of it properly.

Hugh the Ducky Tech Line

*Your heating situation is probably as unique as you are. Feel free to call or email our **Hugh the Ducky Tech Line** for personal assistance.

HUGH@hughydronics.com- include pics of your set up/question please.

218-587-5001

