

General description: The Stormglass is a slender glass tube, eight to ten inches long, containing a liquid composed of a mixture of water, ethanol, camphor, ammonium chloride and potassium nitrate. From time to time, crystals appear in various arrangement. Some people claimed that these phenomena indicated coming weather, and others that they resulted from changes in temperature, wind direction, light or atmospheric electricity. The true inventor of the Stormglass is still unknown. One of the first scientists who detailed explored the Stormglass was admiral Fitzroy (1805 – 1865) . He believed (and in future the others), that the Stormglass can be used as a weather predictor. The prediction was based on course of growth of crystals in the glass tube.

More you can find for example here:
http://en.wikipedia.org/wiki/Storm_glass



We are interested in Stormglass since 1999. In 2010 we established small company producing various Stormglasses, most of them as collectible pieces.

It is necessary to say, that prediction of coming weather is not probably possible...In the times of admiral Fitzroy when the Stormglass was placed somewhere in the boat, then sudden changes of the temperature led to crystal growth and again their dissolving...and if next day some change in weather was occurred, then it was judged to process in the Stormglass. The main driving force of the growth and dissolving of the crystals is temperature change...but time to time, we have observed the growth of the crystals at constant temperature!

After transport: The volume of the Stormglass will be whirled up. It can takes several days, than crystals start to grow. Placing in colder place, below 20°C (approximately 16-18 °C work surely) spurs the growth of the crystals. The best place for the Stormglass is shielded place from sunshine and heaters.

Do not keep it on the sunshine for a long time, otherwise the solution inside the Stormglass can change into

yellow color. Moreover, on such heated place, no crystal will form! Temperature range should be around 18-22°C. (in case of temperatures below 18 °C, dramatic growth of the crystals can occur and the Stormglass can be almost filled with crystalline mass. In case of higher temperatures above 22°C, there probably will be slow dissolving process of the crystals maybe till transparent colorless liquid without any crystalline rest. But after placing to the colder place, next day you can be surprised with new crystals.

Possible activation of the solution: Keep the Stormglass, at least overnight, on the warm place (temperature 22 – 26 °C). The solution inside become more saturated and therefore more active. Next day, place the Stormglass to colder place with approximately temperature 20-19°C and lower. Approximately within 24 hours, you will observe new crystals.

Our personal observations: In winter days, Stormglass was placed in room at 22°C for longer time (14-20 days) and small or no new crystals were observed, but when temperature decreased to 18-19 °C, new fresh crystal were observed. On the other hand, during summer days, Stormglass was placed in room at 25-26°C and for long time and no crystals were observed– only crystalline rest on the bottom (this was expected because of too high temperature). But then suddenly, temperature decreased into 24°C and nice crystals were slowly formed!...here is clear evidence that there is something unusual (at 22°C no crystal growth, at 24°C new crystal were observed!)...why, we do not know...

„Snowfall effect“ – this effect *strongly depends on temperature changes*, in the other words, on thermal gradient. The gradient starts approximately at 30 – 40 °C and finish somewhere at 17-18 °C. What is necessary to do:

Heating of the Stormglass approximately to 40 °C *till all crystals will not dissolve*. This can be done by means of warm running water under shaking with the Stormglass – it takes about 2-3 minutes depends on temperature of the water. **In case of Stormglass with wooden pedestal**, avoid this part from water! In this case, dissolving of the crystals can be achieved by means of hair dryer – within 3-5 minutes solution in the Stormglass will be without crystals – transparent, colorless. **In case of all-glass Stormglass**, this glass can be immersed into warm water. After complete dissolving of the crystals, place the Stormglass somewhere with temperature around 18-22 °C and then...only wait!

Within 10-20 minutes (maybe little earlier or later) you will see the formation of small dots. The dots will gradually increase bulk and shape. You will have opportunity to observe

squares and stars...and snowfall effect begins. The duration of the effect is approximately 10-30 minutes, and the effect ends when the Stormglass is almost filled with crystalline „snow“. Sometimes you can observe the growth of the crystalline leaves down from the liquid level!



The all procedure can be repeated for ages!

Note: When „snow-fall“ effect is finished, the Stormglass will be filled with white precipitate. Sometimes the precipitate can float. Let it stand over night. In case that the precipitate will not sediment, shake gently with Stormglass – air bubbles will be released from the precipitate and the precipitate starts sediment. Then, it can take several days, then new crystals start to grow. If the Stormglass will be placed in colder place 18°C and less, next day you will be surprised with new crystals!

Breaking of the Stormglass: The conten of the Stormglass is not toxic, but avoid drinking of that! In case of breaking of the Stormglass, wash the place only with water and soap. Characteristic smell of resin is from camphor present in the mixture. In case of contact of the mixture with skin, wash it with warm water and soap. The mixture contains dilluted ethanol, therefore avoid contact with flame or some highly heated places – oven, cooker, etc..

The beauty of the Stormglass is based on various shapes and sizes of crystals formed inside. The process is neverending! Still the Stormglass will be produced crystal formation, which will be dissapeare and arise again in dependance on temperature. The Stormglass is a piece of history...this instrument can memorize you the ages of experimets and observation with mistakes and successes and the efford how to find the method for weather prediction.

Enjoy the observations and beauty of formed crystals!