

Making Amber Belgian Candi Sugar

I set out trying to make Belgian Candi sugar by reviewing some of the commonly found methods on the internet which employ the use of a citric acid (lemon juice, cream of tartar citric acid etc) to invert the sugar. This process splits the sucrose (common white sugar) into glucose and fructose which yields a sweeter tasting product that is used commonly in Belgian brewing to increase gravity and adjust colour, with some flavour being infused depending on the type (colour) of the sugar made.

Ingredients

500 grams of white sugar
¼ of a teaspoon of citric acid
Water (just enough to cover the sugar)
Ice water in a separate vessel
Icing sugar (for dusting finished product)

Equipment

Stirring implement (wooden spoon)
Digital thermometer capable of reading over 160 degrees Celsius
Spoon (for collecting ice water as required)
Silicone mould or tray lined with baking paper
Meat mallet

Method

1. Pour sugar into a saucepan and cover with just enough water to cover. The water will be boiled off so the least amount of water is desirable.



2. Begin to heat the mixer, stirring until the sugar is completely dissolved, being careful not to let the sugar sit on the bottom of the pan and scorch.
3. Once the mixture is thoroughly mixed the water will begin to boil off. Once this occurs insert the thermometer and raise the temperature to 125 degrees Celsius.



4. Once you reach 125 degrees you need to hold the temperature between 125 and 130 degrees Celsius for a minimum of 20 minutes. This is the required amount of time to invert the sugar into glucose and fructose. If you find the temperature increasing, use a spoon to collect some ice water put it into the mixture. This will drop the temperature back down to the desired range.
5. After 20 minutes you can continue cooking the mixture for a darker candi sugar. Holding the temperature at the desired level. This mixture was cooked for 45 minutes to produce an amber candi sugar. Note the colour change.





6. Once the desired colour is reached the mixture needs to be raised to the hard crack stage. This is over 150 degrees Celsius. This will cause the mixture to solidify when cooled so it can be cracked into pieces and stored in a freezer or fridge.



7. Once the hard crack temperature is reached the mixture will need to be transferred to a silicone mould or tray lined with baking paper to cool. Be careful as the mixture is extremely hot.



8. Let the mixture cool on the bench or in the freezer (which will be a quicker method and the one used in this production). Once the mixture is sufficiently cool you can turn the hard candi sugar onto a board and begin to crack with a mallet so it can be stored in more conveniently sized pieces.



9. Next the mixture needs to be bagged and tagged and stored in the freezer for an extended shelf life. Dust the mixture with icing sugar so it doesn't stick together.



Conclusion

The experiment yielded satisfactory results and served to demonstrate how sugar can be inverted with the addition of citric acid. The yield was very close to the initial sugar weight of 500 grams.

When doing the initial research for this method I discovered that there is an alternative method where pickling lime is used to increase the PH rather than decrease it. I had trouble sourcing pickling lime for this trial so I would like to employ that method next time which is supposed to yield a better dark candi product with the dark raising character of true Belgian Candi sugar.