

# International Contest for Note by Note Cooking



**Topic: Suspensions**

**Recipe Name: Ice-Cream Balls**

**Submitted By-**

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**FIPDES**

## Ice-Cream Balls

### 1. Description

Ice-cream is a foam, emulsion and a suspension, making it a highly complex system (Walstra et. al., 2005). But in order to meet the competition requirements, the ice cream made contains a very little air (Overrun < 5%), and contains, soft caramel balls and caramel crackers suspended in vanilla ice cream, to create a multitextured sensation while consumption. Once the ice cream is made it is coated with chocolate flavour, caramel colour and sodium alginate mix to create a second layer outside the ice cream balls. The recipe is inspired from ice-cream sundae's I like a lot.

### 2. Ingredients

#### Sodium Alginate Slurry

Sodium Alginate- 5g

Water- 1L/1000 g

#### Liquid Caramel

Powdered Caramel (Louis Francois) – 2.5g

Water- 25g/ml

Calcium Lactate- 0.75g

#### Caramel Cracker

Sucrose- 100g

#### Vanilla Ice Cream

Water- 275g

MyoPure Calcium Caseinate- 20g

Clarified Butter- 82.5g

Sucrose- 115g

Organic Vanilla Powder- 7.5g

#### Chocolate Covering

Sodium Alginate- 5g

Chocolate Colour (Louis Francois)- 15 g

Cocoa Butter- 150g

Vanilla Flavour (Louis Francois)- 0.5g

Chocolate Flavour (Myprotein Flavdrops)- 5g

Water- 980 g

### 3. Process

#### Soft Caramel Balls

- i. Firstly, the sodium alginate (5g) and water (1000g) is mixed in a blender to fully dissolve the gum and then this slurry kept aside till it becomes transparent.
- ii. Next liquid caramel is created using powdered caramel, calcium lactate and water, Calcium lactate is necessary to allow gel formation with sodium alginate.
- iii. A dropper is used to pour a drop of the caramel liquid in the sodium alginate slurry. Once enough drops are made, they are transferred to water for cleaning the surface. At most two cleaning steps in water are performed.

### Caramel Crackers

- i. Sugar is taken in a pan and heated.
- ii. The process involves removal of water so that dry solid can be created and requires high heat of around 180-200 °C.
- iii. Once melted completely, the stirring is performed to allow faster water removal.
- iv. Once a dark brown colour is obtained, it is allowed to cool and then the hardened mass is broken to create small caramel crackers.

### Vanilla Ice Cream (Bylund, 2003)

- i. Water is heated and calcium caseinate, vanilla powder, sucrose and clarified butter is dissolved. When solids are completely dissolved temperature is brought to to 4 °C.
- ii. At 4 °C, the soft caramel balls (25g) and caramel crackers (25g) is added into the mix. The ripening process is continued for 3 hrs.
- iii. The mixture is then poured into a kitchen scale ice cream maker to start the freezing process. Upon reaching a temperature of - 4 °C, the mixture is transferred into the freezer for hardening by pouring in circular moulds.

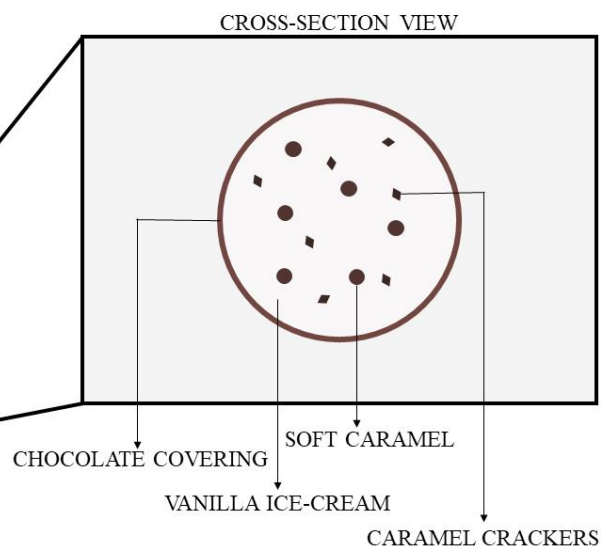
### Chocolate Covering

- i. The water is heated to 60 °C, and chocolate colour, flavour, cocoa butter, vanilla flavour is dissolved. This is followed by cooling to room temperature.
- ii. The mixture is then poured into a blender with sodium alginate to create the covering, which is then rested for 1 h.

### Final Assembling

- i. The frozen ice cream balls are added to the chocolate covering.
- ii. This is followed by cleaning in water and freezing again to help regain the shape.
- iii. For serving the product is wrapped in a toffee wrapper.

#### 4. Picture



## References

1. SueBee Homemaker. *Dark Chocolate Covered Energy Bites*. Available from: <https://suebeehomemaker.com/dark-chocolate-covered-energy-bites/#comments> [Accessed on 23 November 2020].
2. Bylund, G., 2003. *Dairy processing handbook*. Tetra Pak Processing Systems AB.
3. Walstra, P., Walstra, P., Wouters, J.T. and Geurts, T.J., 2005. *Dairy science and technology*. CRC press.