**Biscuits and Cookies**

**Ingredients for making biscuits**

|  |  |  |  |
| --- | --- | --- | --- |
| **Major ingredients** | **Role** | **Minor ingredients** | **Role** |
| White sugar | Used for caramelization and enhance sweetness | Eggs | Creates stability and structure |
| Butter | Act as lubricants | Vanilla | To enhance taste |
| Flour | To absorb excess water and quality flour is required | Color | To gain quality by good appearance |
| Water | Used for mixing dough and bring uniformity in dough | Emulsifier | To modify texture and viscosity |
| Salt | Act as preservative, develop texture and enhance flavor | Milk and milk products | Tenderness could be improved, develop taste and flavour |
| Fats and oils | Act as lubricants, provide texture | Baking soda | To make the dough rise |

**Ingredients for making cookies**

|  |  |  |  |
| --- | --- | --- | --- |
| **Major ingredients** | **Role** | **Minor ingredients** | **Role** |
| White sugar | Used for caramelization | Chocolate chips | To add flavour and texture |
| Brown sugar | To enhance sweetness | Eggs | Creates stability and structure |
| Butter | Act as lubricants | Vanilla | To enhance taste |
| Flour | To absorb excess water and quality flour is required | Color | To gain quality by attractive appearance |
| Water | Used for mixing dough and bring uniformity in dough | Emulsifier | To modify texture and viscosity |
| Fats and oils | Act as lubricants, provide texture | Baking soda | To make the dough rise |

**Difference between biscuits and cookies**

|  |  |
| --- | --- |
| **Biscuits** | **Cookies** |
| Biscuits are sweet and salty | Cookies are also known as small cakes as they are always sweet in taste |
| Biscuits have hard texture than cookies | Cookies have soft textured due to the availability of high content of sugar and fat  |
| Biscuits are flat, crisp and small | Cookies are sweet, flat and soft |

**Manufacturing procedure of biscuits and cookies**

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**Flow diagram of manufacturing biscuits and cookies**

Material receiving

Premixing

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Mixing

Dough preparation

Sheeting

Moulding

Biscuits forming

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Baking

Cooling

Quality control

Packaging

**Major stages in biscuits manufacturing**

**Forming**

Sheeting

Moulders

Cutter

Size reduction

Maintain shape and size of biscuits’ dough

**Mixing**

Mixers

Mixing time (5 minutes)

Water

Dough consistency

Biscuits grinders

**Premixing**

Ingredients addition

Sugar solution

Milk solution

Preparation of flour

Fat

Additives

**Packaging**

Aluminum foils

Plastic trays

Air traffic control ATC boxes

Polyethylene wrappers

Corrugated board boxes

**Cooling**

Cooling time

Cooling conveyer

**Baking**

Proofing and puffing zone (15 minutes)

Baking and coloring zone

Baking ovens

Time and temperature

**Quality control in biscuits’ industries**

* The quality of biscuits could be evaluated by sensory methods
* The analysis of problems in manufacturing process is established
* The validity of equipments is necessary
* (GMP) Good manufacturing process is significant for the production of biscuits
* Maintenance of High-Quality Packaging is essential to ensure a longer shelf life.
* Elimination of contaminants are important especially in the case of raw material
* All the control measures are adopted to ensure quality in biscuits industries