

3318 Principles of ice cream production

SQA Unit Code

H3KG 04

Level 3

SCQF Level 6

SCQF Credit value 3

Unit Summary

This standard is about the principles of ice cream making in food and drink manufacture and/or supply operations. The principles of ice cream making are important in providing an underpinning knowledge to the methods and processes needed to make ice cream.

You will need to know and understand the underpinning knowledge relating to the making of ice cream. You will need to know and understand the importance of equipment, ingredients and recipe to the production of ice cream.

This standard is for you if you work in food and drink manufacture and/or supply operations and need a broad understanding of the principles of ice cream production

In order to be assessed as competent you must demonstrate to your assessor that you can consistently perform to the requirements set out below. Your performance evidence must include at least one observation by your assessor.

Evidence of knowledge and understanding should be collected during observation of performance in the workplace. Where it cannot be collected by observing performance, other assessment methods should be used.

You need to know and understand:

1. how ice cream is classified and the key differences between dairy ice cream, cream ice and milk ice
2. the regulations relating to the composition requirements for different types of ice cream
3. the regulations relating to the heat treatment and storage of ice cream for sale
4. the functions of skimmed milk powder, whey milk powder, condensed skim milk, anhydrous milk fat, vegetable fat, sucrose, dextrose and glucose syrup in the production of ice cream
5. the common types of emulsifier and stabiliser used in ice cream making and why they are used
6. common flavourings used in the production of ice cream
7. common colours used in the production of ice cream
8. the affect of incorporating different amounts of air on how light the final product tastes
9. the key differences between equipment and processes in large and small scale craft production ice cream producing environments
10. the affect of heat treatment, homogenisation, cooling, ageing and freezing on

the final ice cream product quality and yield

11. the affect of mix composition, the amount of air incorporated into the ice cream and the type of freezer on the freezing temperature
12. why freezing must take place quickly and its affect on ice crystal formation and the smoothness of the final ice cream product
13. the term "overrun" and its importance to ice cream specifications, quality yield and the economic value of the final ice cream product
14. why it is important to control storage temperature of ice cream
15. common faults found in ice cream and how they occur

Evidence of performance may employ examples of the following assessment:

- observation
- written and oral questioning;
- evidence from company systems (e.g. Food Safety Management System)
- reviewing the outcomes of work
- checking any records of documents completed
- checking accounts of work that the candidate or others have written