

Control flour blending in milling

Overview

This standard is about the skills and knowledge needed for you to control flour blending in milling. You will need the skills and knowledge to carry out the blending of different types of flours and additives in milling to produce a final product, determined by the product specification to meet the customer's requirements. You will need the skills and knowledge to prepare different types or varieties of flour with specific characteristics. You will also need the skills and knowledge to start up, run and shut down equipment, as well as being able to take the appropriate action should operating problems occur. You will also need to understand the principles of flour definitions and flour grades as well as understand the milling quality assurance and controls which enable consistent and reliable production of specified flours. This standard is for you if you work in food and drink manufacture and/or supply operations and you carry out operative tasks in and around the control of blending flours.

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Performance criteria

You must be able to:

Prepare for blending

1. prepare for blending in accordance with legal and regulatory requirements, organisational health and safety, hygiene and environmental standards and instructions
2. check product specifications at the right time
3. set up equipment according to specification
4. make sure that the materials for blending are available and fit for use
5. make sure that services meet requirements
6. start up the plant and check that it is running to specification
7. take action in response to operating problems in accordance with organisational requirements
8. maintain communication according to organisational procedures
9. complete all records according to organisational standards

Carry out blending

10. carry out blending in accordance with legal and regulatory requirements, organisational health and safety, hygiene and environmental standards and instructions
11. use equipment and make sure that it is supplied with materials and services
12. achieve the required output to the specification
13. make sure the product is transferred to the next stage of the milling process

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14. take action in response to operating problems within the limits of your responsibility
 15. maintain communication according to organisational procedures
 16. complete all records according to organisational standards
- Finish blending
17. finish blending in accordance with legal and regulatory requirements, organisational health and safety, hygiene and environmental standards and instructions
 18. check specifications to time the shut down
 19. shut down equipment in accordance with organisational procedures
 20. deal with items that can be re-cycled or re-worked within the permitted re-work rules detailed in procedures
 21. dispose of waste in line with organisational requirements
 22. make equipment ready for future use after completion of the process
 23. maintain communication according to organisational procedures
 24. complete all records according to organisational standards

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Knowledge and understanding

You need to know and understand:

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1. what the legal or regulatory requirements, the organisation health and safety, hygiene and environmental standards and instructions are and what may happen if they are not followed
2. what the main types of blending systems are, and their relative benefits
3. what the components of the blending system are
4. what and where the quality control checks are in the blending process
5. what recording, reporting and communication is needed and how to carry this out and the reasons why it is important to do so
6. the use of the correct formulation
7. what action to take when the blend specification is not met
8. how to carry out the necessary pre start checks and why it is important to do so
9. how to follow the start up procedures for the process and why it is important to do so
10. how to interpret flour recipes and how to input into blending system
11. how to follow work instructions and why it is important to do so
12. common sources of contamination during blending, how to avoid these and what might happen if this is not done
13. how to operate, regulate and shut down the relevant equipment

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14. when it is necessary to seek assistance and how to seek it
15. how to carry out blending and why it is important to do so
16. what the limits of your own authority and competence are and why it is important to work within them
17. how to identify and deal with items that can be re-cycled or reworked
18. how to dispose of waste and why it is important to do so
19. how to make equipment ready for future use
- Flour specifications and quality assurance
20. the definition and key components of white, brown and wholemeal flours
21. current regulations associated with the control of blending
22. the classification of flour types; soft/low, medium and hard protein/strength flours
23. what flour grades are
24. how flour divides are achieved in practice
25. the equation for flour divides and how flour divides are calculated
26. the rationale for testing quality and setting of a Mill Quality Plan
27. the purpose of quality assurance, quality control and product specifications in milling
28. what the importance of sampling at key stages in milling is
29. the importance of good maintenance, accurate calibration and clear testing methodology for testing equipment
30. the role of monitoring and benchmarking in reliability and standardisation of test results
31. the importance of training for people involved in milling quality

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32. how test results are interpreted including the use of/concepts of;
estimation, mean value, standard deviation, variations and
capability

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