



Food Manufacture

Temperature Control

Lesson 3

Understand the importance of temperature control in food manufacturing to ensure food safety is never compromised.





The general rule for cooling hot food is to cool it to 8°C within 90 minutes to prevent any harmful bacteria from growing.





**It is more
important to
cool high risk
food within 90
minutes than
low risk foods.**





Hot foods should never be placed straight into a refrigerator/chiller or freezer before being cooled down first. Otherwise, the hot food will warm the temperature of the refrigerator/chiller or freezer and put all the other product in there at risk of being unsafe to eat.





Some products can crystallise when they are cooled e.g., chocolate. The different varieties of chocolate need to follow a specific temperature curve to allow the product to achieve the perfect colour and shiny surface. An automated cooling system is best used to achieve this.





There are several methods which can help to reduce the time it takes for a product to cool:

- Dividing the product into smaller amounts/pieces
- Stirring
- Spreading product out on a tray
- Blast chiller/blast freezer



**A blast chiller is
one of the most
effective ways
of cooling
product in a
factory
environment.**



Revision Activity 3

**What is the general rule
for cooling food?**