

Small bakers and average weight

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This guidance is for England, Scotland and Wales

Bread may be baked to an average weight, which means that within a group of loaves some will be heavier and some slightly lighter than the stated weight. There are three rules that must be met relating to the number of permitted 'underweight' loaves.

It is also a legal requirement for checks to be carried out on the baked loaves before they are offered for sale; this is to ensure that they pass the three rules. With the exception of wrapped bread, a record of the checks need not be kept. However, it is a good idea to do so because it will show that your baking process is being controlled in order to produce bread of the required weight.

Who is a small baker?

One who does not have a fully automatic baking plant and who sells the majority of their production from their own premises or vehicles.

Which loaves are controlled?

Only loaves of bread that are made up in a pre-determined constant quantity and weigh more than 300 g. 'Bread' means bread in the form of single loaves (whether sliced or not) and includes fancy loaves and milk loaves but not bun loaves, fruit loaves, malt loaves or fruited malt loaves.

How are they controlled?

Unwrapped whole loaves and loaves in a container that is not securely enclosed (for example, a French stick in an open-ended sleeve), that weigh over 300 g, can only be offered for sale if either:

- an indication of the weight of the bread is given on a ticket displayed in immediate proximity to that loaf
... or
- a notice is displayed that:
 - lists the forms (for example, sandwich loaf, cottage loaf, French stick) in which unwrapped loaves of bread are made for sale
 - indicates the weight in which each form is made for sale

Exempt from these weight display requirements are traditional small and large loaves that weigh 400 g or 800 g, or other multiples of 400 g - for example, 1,200 g.

Loaves of bread in securely closed wrapping are required to be clearly marked with the net weight.

The three rules

Bread may be baked to an average weight. This means that within a group (that is, one type of loaf produced at one time) some loaves will be heavier and some slightly lighter than the 'nominal weight'; this is the weight stated on the wrapper and is referred to as the 'Qn'.

To comply with average weight requirements each of the following three rules must be met:

- **rule 1:** the average weight of a baked batch of a type of bread must not be less than the Qn
- **rule 2:** approximately no more than one in 40 loaves of the baked batch may have a negative error greater than the tolerable negative error (TNE) - that is, weigh less than Qn minus TNE
- **rule 3:** none of the loaves in the baked batch may have a negative error greater than twice the TNE - that is, weigh less than Qn minus 2TNE

It is an offence to fail to comply with the three rules.

Packages in the batch whose actual contents are less than the minimum acceptable weight are considered defective. The minimum acceptable weight is calculated by subtracting the TNE from the Qn of the package.

Tolerable negative error

The following table shows the TNE values that you should use when complying with the three rules.

Nominal quantity (Qn)	TNE values
	Tolerable negative error (TNE)
From 200 g to 300 g	9 g
From 300 g to 500 g	3% of the Qn
From 500 g to 1,000 g	15 g
From 1,000 g to 10,000 g	1.5% of the Qn

The minimum acceptable weight is obtained by subtracting the appropriate TNE from the Qn.

No loaves can weigh less than the Qn minus twice the TNE.

For a traditional 400 g small loaf of bread:

- the minimum acceptable weight is a deficiency of 3% (388 g)
- no loaves can have a deficiency of 6% (376 g)

For a traditional 800 g large loaf of bread:

- the minimum acceptable weight is a deficiency of 15 g (785 g)
- no loaves can have a deficiency of 30 g (770 g)

Loaves of bread that weigh less than the minimum acceptable weight are called 'defective' items.

Loaves of bread that weigh less than Qn minus twice the TNE are included in the total of defective items.

If bakers wish to make all of their loaves weigh more than the Qn they may do so; this will ensure that they comply with the three rules.

Retailers who finish the baking process for part-baked bread at the shop where it is sold should give written notice to their local trading standards service if they have chosen to not have the bread treated under the average system. In this case all of the bread should weigh at least the Qn.

Do dough piece weights have to be checked?

No - it is the weight of the finished loaf that counts - but it is a good idea to do so in order to ensure that the weight of finished loaves is consistent.

It is recommended that the weight for dough pieces for each type of bread be displayed in a chart near to the place of weighing. Safe target dough piece weights have been found to be 480 g for 400 g loaves and 950 g for 800 g loaves, but tests should be done to find the best weight for each type and size of loaf produced.

What checks should bakers make?

A sample of loaves should be taken from each batch that is baked and check-weighed. It is a legal requirement for checks to be carried out on the baked loaves before they are offered for sale, which will confirm whether or not they pass the three rules. A record of the check must be kept for the shelf life of the loaf; the exception to this is records of checks made on the weight of unwrapped bread and bread sold in open wrappers, which need not be kept.

Check-weighing is carried out by taking a sample of loaves from each baked batch, as shown in the following table.

Number of loaves to be weighed in different size batches

Number of loaves in group / batch	Number of samples that must be weighed
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1 - 49

3

Number of loaves in group / batch Number of samples that must be weighed

50 - 99	5
100 - 199	7
200 and more	11

The results of the sample loaves weighed are used to determine whether the three rules have been complied with.

- **rule 1:** average weight of the baked batch. The average weight of the sample must be above the Q_n
- **rule 2:** number of defective loaves below the minimum acceptable weight. No more than one sample loaf may weigh less than the minimum acceptable weight
- **rule 3:** none of the loaves in the baked batch may have a negative error greater than twice the TNE. None of the sample loaves may weigh less than Q_n minus 2TNE

If any of the three rules are not met, the entire baked batch should be weighed and action taken to ensure the batch complies before it can be placed on sale:

- all loaves weighing below Q_n minus 2TNE must be removed from the batch
- there must be no more than one loaf that is defective remaining in the batch
- the average weight of the remaining loaves in the batch must be above the Q_n ; sufficient lighter weight loaves must be removed from the batch if necessary to ensure this

Loaves that are required to be removed from the baked batch can only be offered for sale if their individual weights are clearly indicated to customers and reduced in price to differentiate them from the correct weight items or else used for other purposes - making sandwiches, for example.

If excessive variation in finished loaf weights is found to be a problem, efforts should be focused on achieving greater uniformity in dough piece weights.

What about weight loss before sale?

If the required check weighing of samples from baked batches is done on loaves whilst still hot from the oven, allowances must be made for the cooling and drying out of loaves whilst on display, as they will reduce in weight as they cool down. Batches of bread are required to pass the three rules at all times they are on sale.

The above examples of required bread weights and allowances are based on cooled weight and checks should be made to determine the weight loss (from hot to cold) of each type and size of bread in order to determine enhanced weights to use when check weighing samples of hot bread. For example, a 400 g loaf may lose 30 g in weight on cooling whilst an 800 g loaf may lose 40 g.

The actual losses can be determined by weighing each type and size of loaf straight from the oven and again when cold at the end of the selling day; you then add the typical amount of weight loss for each type and size of bread on to the Q_n to use in assessing compliance with the three rules. The same enhancements should also be given to the minimum acceptable weight for the loaves.

This would mean, for our example 400 g loaf, that the average weight of samples weighed hot from the oven should be 430 g with no more than one below 418 g and none below 406 g. For our 800 g loaf example, samples weighed hot from the oven should have an average of 840 g with only one below 825 g and none below 810 g.

What about keeping records?

You only need to keep a record of baked bread weight checks for bread that is to be offered for sale in a secure wrapper. The records must be kept for the shelf life of the loaf and must be provided for inspection if requested by a weights and measures inspector.

Some bakers will previously have been granted an exemption from record keeping by their local chief inspector of weights and measures. These bakers are producing bread where every dough piece is weighed to an acceptable target weight and the majority of the bread is sold directly to the public at the premises where it is baked or from vehicles operated from those premises. Following a change in the legislation such exemptions are no longer able to be applied for and granted (although existing exemptions still apply).

As mentioned above, records of the weight checks made on unwrapped bread and bread sold in open wrappers are not required to be kept. However, whether or not you are required to keep records of bread weight checks, keeping such records can be a good idea as they help to prove the defence of taking all reasonable precautions and all due diligence that is allowed for by the Weights and Measures Act.

To be robust, the record should include the following:

- name of person carrying out the checks
- date and time of weighing
- number of loaves in each batch produced
- target weights for hot or cold loaves of each type produced
- weight of each loaf sampled, including the number and type of bread in each batch weighed, and whether the loaves were hot or cold at that time
- the average weight of the loaves sampled
- number of loaves sampled below the minimum acceptable weight
- action taken if any of the three rules are not met

A diary entry may be a practical way to keep such records.

What equipment can be used to check finished loaves?

A suitable weighing machine is one that has divisions that are no more than 2 g (based on 400 g and 800 g loaves). This applies equally to both analogue and digital machines. New scales must comply with the Non-automatic Weighing Instruments Regulations 2016. These scales are CE- or UKCA-marked and also have stickers, one of which shows the letter 'M' (see '[Weighing equipment for legal use](#)' for more details and illustrations of the stickers). You may still use old scales but they must be 'crown stamped' as fit for trade use.

Actual weight of packages

If check weighing for compliance with the three rules is carried out on packaged bread please see '[Packaged goods: average quantity](#)' for an explanation of how to determine the tare weight of the packaging and how to make allowances for variation.

Trading standards

For more information on the work of trading standards services - and the possible consequences of not

abiding by the law - please see ['Trading standards: powers, enforcement and penalties'](#).

In this update

No major changes.

Last reviewed / updated: December 2022

Key legislation

[Weights and Measures \(Miscellaneous Foods\) Order 1988](#)

[Weights and Measures \(Packaged Goods\) Regulations 2006](#)

[Weights and Measures \(Specified Quantities\) \(Unwrapped Bread and Intoxicating Liquor\) Order 2011](#)

[Non-automatic Weighing Instruments Regulations 2016](#)

Please note

This information is intended for guidance; only the courts can give an authoritative interpretation of the law.

The guide's 'Key legislation' links often only shows the original version of the legislation, although some amending legislation is linked to separately where it is directly related to the content of a guide. Information on changes to legislation can be found by following the above links and clicking on the 'More Resources' tab.

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