SuperFast
Thermapen®



A guide to better food by using and caring for your Thermapen®



Thermapen Handy Tips!

- Your Thermapen doesn't test doneness - it tests temperature very accurately *(see page 7)*.
- The Thermapen doesn't lock in on a reading. It is accurate enough to show the ever-changing temperature of your food while it cooks *(see page 7)*.
- Your Thermapen measures temperature at the tip of its probe *(see page 9)*. Penetrate your food with the probe tip where you want to measure - usually the centre of the thickest part of your food *(see page 12)*.
- Never leave your Thermapen in an oven while cooking *(see page 20)*.
- In general, be sure to thaw meats thoroughly before cooking *(see page 10)*.
- Remember that the temperature of meat normally continues to rise a little after you remove it from the oven or grill *(see page 13)*.
- Don't test the accuracy of a thermometer in food. Use a properly made ice bath *(see page 17)*.
- Be sure to clean your Thermapen probe after contact with uncooked or undercooked meat *(see page 19)*.
- Wipe your Thermapen regularly. The SuperFast Thermapen 3 should not be submerged. The SuperFast Thermapen 4 can survive short-term submersion. Do not put it in the dishwasher *(see page 19)*.

Guarantee

The Thermapen carries a two-year guarantee against defects in either components or workmanship. During this period, products that prove to be defective will, at the discretion of ETI, be either repaired or replaced without charge. This guarantee does not apply to probes, where a six-month period is offered. The product guarantee does not cover damage caused by fair wear and tear, abnormal storage conditions, incorrect use, accidental misuse, abuse, neglect, misapplication or modification. Full details of liability are available within ETI's Terms & Conditions of Sale at www.thermapen.co.uk/terms. In line with our policy of continuous development, we reserve the right to amend our product specification without prior notice.

Thermapen®

A guide to better food by using and caring for your Thermapen®



www.thermapen.co.uk

Contents

Fifteen Minutes Well Spent 5

A Few Things Your Thermapen Does NOT Do

- It doesn't start at zero..... 6
- It doesn't stop the cooking for you..... 6
- It tests temperature not doneness 7
- It doesn't lock in on a reading 7

Here's What Your Thermapen DOES Do..... 7

- Measuring Temperatures 9

Special Considerations for Cooking Meat, Poultry & Fish

- 1. Thawing 10
- 2. Removing from Fridge..... 11
- 3. Low and Slow Versus Hot and Fast 11
- 4. Choosing a Target Temperature 11
- 5. Getting a Proper Reading with Your Thermapen..... 12
- 6. Resting 13
- Outdoor Grilling 14
- Using Oven Alarms with your Thermapen 14

Food Safety & Temperature..... 15

Thermapen Accuracy

- Ready, Set, Go 16
- Performing an Ice Bath Test..... 17
- Performing a Boiling Water Test..... 18
- Re-calibration 19

Cleaning & Caring for Your Thermapen

- Cleaning the Probe..... 19
- Cleaning the Thermapen Body..... 19
- Storing Your Thermapen..... 20
- Avoid Overheating the Thermapen Body 20

Customising Your Thermapen..... 21

Notes 22

Frequently Asked Questions 23

Recommended Temperatures.....Back Cover

Fifteen Minutes Well Spent…



Thank you for purchasing our SuperFast Thermapen which is probably the fastest, most sensitive, and accurate thermometer you will have ever owned. It will assist you to learn things about the cooking process that you could not see using other thermometers. It is, however, a tool and like all tools, it requires proper use and care to be effective.

This booklet should only take fifteen minutes to read and will help you get the most out of your Thermapen experience. Your Thermapen was pre-calibrated by hand in our laboratory and is guaranteed to be accurate to ±0.4 °C (-49.9 to 199.9 °C) and will display the temperature of food or liquid in **just three seconds!** You are probably not used to that kind of speed and accuracy in a thermometer.

Keep this in mind as you begin to take readings with your Thermapen and learn to rely more and more on the information it provides. It truly can change the way you cook and prepare food.

accurate temperature reading in just **three seconds!**

A Few Things Your Thermapen **Does NOT** Do

It doesn't start at zero

The moment you swing open its probe, your Thermapen starts displaying the current temperature at its tip. Your Thermapen is not like a bathroom scale that starts at zero every time. As soon as it comes on, it displays a temperature. If you touch the tip of the probe, you can watch the temperature change (*it will probably go up, unless you are on a tropical island*)*. Remove your finger and watch the temperature fall again. Try it.

It doesn't stop the cooking for you

It may seem like an obvious point, but the Thermapen is just a tool that gives you highly accurate information about the temperature of the food you are preparing. YOU have to make the decisions about when to increase or decrease the heat and about when things are done. It's a learning process. You'll learn the most from just experimenting and keeping track of your results. There are a lot of variables at play, such as how cold the food was before cooking, your heat setting, the consistency of the cooking surface, and much more. But with accurate information from your Thermapen, you'll learn quickly to account for such variables to achieve just the right results.



It doesn't test doneness - it only tests the current temperature!

** The Thermapen shows the temperature at it's tip and works best when it's probe is inserted or immersed into something. It will read air temperature; however, it can take a minute or two to get an accurate reading unless the air is moving rapidly.*

It doesn't test doneness; it only tests the current temperature

While temperature is the most effective indication of the doneness of food while it is cooking, cooked food will eventually cool. For example (*although you might be tempted to try*), it wouldn't do you much good to take your Thermapen to a restaurant so you can test your steak as it arrives at your table. Your Thermapen would only tell you the temperature of the steak at the table, not the highest temperature the steak reached in the kitchen - which would be the temperature that determined its doneness. While cooking, remember to look for the highest temperature reached in the thickest part of the food to judge doneness (*see 'Outdoor Grilling' on page 14*).

It doesn't lock in on a reading

If you find that the digits on your Thermapen readout keep changing after three seconds, that's because the temperature at the tip is changing. When you first penetrate meat on the grill, for example, the Thermapen display will change very rapidly as it moves from ambient temperature to the temperature of the meat being probed. Within three seconds, the rate of change will slow dramatically giving you an accurate reading, but it will not stop changing completely. As the meat continues to cook and the tip of your probe moves through the meat, your Thermapen will continue to detect variations in the temperature of the meat itself. Now…



Here's What Your Thermapen **DOES** Do

Quite simply, it gives you the fastest, most accurate temperature information you can find in an affordable professional-grade thermometer. It can be used to check the internal temperature of the following…

- meats
- poultry
- fish/shellfish
- vegetables
- casseroles
- desserts
- confectionery
- breads
- doughs
- sauces
- drinks
- and much more...

…while you prepare foods in your…

- oven
- microwave
- fridge
- freezer
- deep fat fryer
- BBQ, grill or smoker
- hob
- worktop

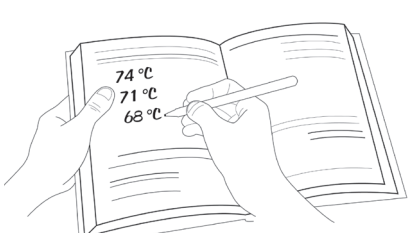
…and anywhere else you work with food.

Some people even use their Thermapen to check the temperature of their bath water! Get creative and think about ways that an accurate temperature reading could improve your life.

Those who make a commitment to using their Thermapen regularly achieve the best results over time. You have likely grown accustomed to estimating the doneness of food through other less scientific methods, such as…

- relying on a recommended cooking time from a recipe
- watching the colour of a bread while baking
- sticking a fork or toothpick into a cake to see if it comes out clean
- stirring and watching the consistency of a sauce or confectionery
- pressing against the top of meat to gauge resistance
- cutting open a fillet on the grill

Many recipes call for just these types of activities, but you now have a highly accurate temperature instrument at your disposal. Start taking readings on your favourite recipes and jotting them down next to the recipes themselves. Make the food the same way you always do and check doneness as you always have, but start writing down the Thermapen readings for when things turn out just the way you like them. That way you will be able to replicate a perfect result using your Thermapen.



You may find that you can gauge the 'hardball' stage of a confectionery recipe more accurately than ever and start making near-misses a thing of the past, if you just take the time to record what is happening with your Thermapen. Keep in mind that each

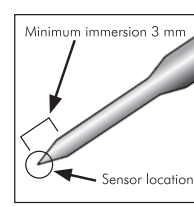
type of meat or combination of ingredients will respond to heat in different ways and be 'done' at different temperatures.

The table on the back cover of this guidebook gives basic recommendations for different types of meat using common terms like 'medium rare' or 'well done', but these are just guidelines. The important thing is to start learning what the temperatures are for your favourite foods when they are just the way you like them.

Measuring Temperatures with your Thermapen

There are no buttons on your Thermapen. It simply turns itself on when you extend the probe* and shuts off when you close the probe back against the Thermapen housing. The SuperFast Thermapen 4 also features a motion-sensing sleep mode, automatically turning off the instrument when set down and re-awakening when picked up again - saving battery life. This feature ranges from 10 - 180 seconds or 'OFF'. The SuperFast Thermapen 3 has an auto-off feature that turns the Thermapen off after 10 minutes of continuous use to preserve battery power**.

Your Thermapen has a micro-thermocouple located at the very tip of its probe shaft. A thermocouple is a pair of two heat-sensitive wires that produce a voltage related to temperature difference. This technology is typically found only in professional-grade thermometers and is what sets your Thermapen apart from other digital 'instant read' thermometers.



Because the micro-thermocouple is so small, your Thermapen need only be inserted at least 3 mm to get an accurate reading. Other cooking thermometers may need 13 mm or more of immersion.

To take a temperature reading with your Thermapen, penetrate the food you are checking with the probe and place the very tip of the probe where you want to measure. When testing doneness in most foods, the coldest part will be the very centre of the thickest portion. With larger foods, you can take quick readings with your Thermapen in several locations to verify that the entire portion is done. If you are chilling a food, the centre of the thickest part will be the last to cool.

** The probe's rotating hub can be a little tight at first but will loosen with use. The probe extends to 180°, but be careful not to force it further.*

*** This feature can be disabled (see 'Customising your Thermapen' on page 21).*

Do not 'stab' at the food being measured, and don't immerse the probe fully. Instead, use gentle, persistent force to insert the probe into the food. The probe tip is sharp and should penetrate meats or other foods with ease. Use care to avoid bone, gristle or other hard substances. Also, don't use the Thermapen to turn or move your meat. The Thermapen probe is durable and should last many years with proper care, but it is hollow and could bend or break if mistreated.



Special Considerations for Cooking Meat, Poultry & Fish

Getting good results when cooking or grilling meat, poultry or fish takes a little bit of extra care. Here are some things to consider when looking for just the right doneness.*

1. Thawing

It is generally never a good idea to put frozen meat over heat.** Even if the outside of a piece of meat is thawed, if the centre is still frozen, the outer parts of the meat will very likely get overcooked while you are trying to bring the centre up to your target temperature.

Take care to completely thaw your meat before putting it over heat. Check the centre of your meat with your Thermapen and compare it to a reading near the outside to be sure the meat is as close as possible to uniform temperature before cooking.

The best way to thaw meat is the slow way - by putting it in your fridge and waiting. If you need to speed the process up, you can use a water bath, but be sure the water surrounding the meat doesn't get above 5 °C to avoid bacterial growth.

Check the temperature of the water regularly with your Thermapen and refresh the bath as needed. Again, use your Thermapen to check the meat for a uniform temperature to be sure it has thawed.

** Please note, that for the purposes of this discussion, we will use the word 'meat' to signify any meat, poultry, or fish.*

*** Some prepared poultry (like flash-frozen enhanced chicken breasts) can cook better from frozen than thawed, depending on the cooking method, but this is an exception to the rule.*

2. Removing from Fridge

Experienced grillers maintain that meat is best when allowed to come near room temperature before being brought to heat. This may be a great time to marinate or preseason beef and allow the flavours to penetrate the meat. Cold beef can generally be left at a moderate room temperature for an hour or two before cooking or grilling without any significant food safety risk. DO NOT leave the meat at room temperature for extended periods. Use extra care with poultry, pork and fish.

3. Low and Slow Versus Hot and Fast

Generally speaking, a low heat setting with a longer cooking time will allow a larger piece of meat to cook more uniformly without overcooking parts of it. However, many techniques rely on an extremely high heat for a shorter period. Searing or browning normally requires higher heat. A combination of methods is sometimes recommended. Similarly, different techniques call for indirect heat versus direct heat. Consult your favourite recipe for advice on the cut of meat you've chosen to be sure you set up your heat source properly.

4. Choosing a Target Temperature

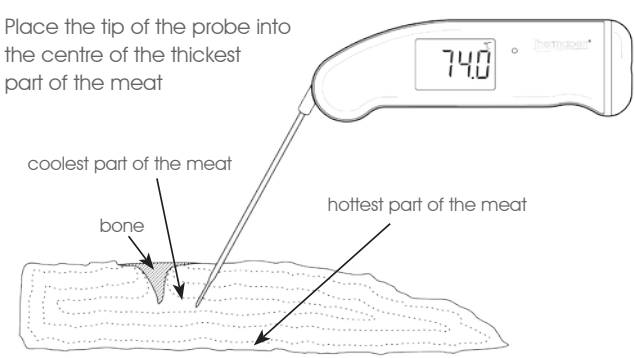
Many modern recipe books include specific temperature recommendations as part of their instructions, but many still do not. We've printed a handy table of recommended temperatures by type of meat and other foods on the back cover of this booklet to get you started. Remember that these temperatures are only a guide to your cooking and should not be treated literally. The precise meaning of terms like 'medium' and 'rare' is a matter of personal taste. Another important thing you'll need to keep in mind is that most meats will continue to rise in temperature after you remove them from the heat - from several degrees up to 6 °C or more. When choosing a target internal temperature for removing your meat from the hob, oven or grill, you will want to allow for at least a 3 °C rise in temperature while resting. For example, to cook a steak to 'medium rare' or 54 °C, you should plan on pulling it off the heat once the internal temperature in the thickest part reads 52 °C on your Thermapen (*see 'Resting' on page 13*).

5. Getting a Proper Reading with Your Thermapen

In poultry, pork and ground beef, there are health reasons to reach safe temperatures before eating. You may be similarly reluctant to eat 'undercooked' steak or fish. However, if you overcook the outer parts or extreme ends of the meat while you are trying to get the centre to reach your target temperature, the result will be disappointing. Various cookbooks and TV shows give advice on achieving a uniformly cooked piece of meat.

Different parts of a piece of meat will be at different temperatures during the cooking process. It is not unusual for the internal temperature of a large roast or turkey to vary by as much as 10 to 15 °C throughout the meat or bird. Even a steak or a boneless chicken breast will show differences of many degrees as you move the tip of your Thermapen probe from the surface toward the centre of the piece or from end to end.

To get a proper reading with your Thermapen, insert the probe tip into the thickest part of the meat from the top.* Make an effort to avoid any obvious bone or gristle. Note the temperature. Slowly push past the centre and you will see the temperature rise in 'real time' at every depth in the piece of meat. Slowly withdraw the probe and you will be able to see the temperature change in the opposite direction.



** Many experts recommend inserting your thermometer probe from the side of a steak or pattie to ensure that you get the probe tip right in the centre, where the temperature will be lowest. You can use a pair of tongs to gently lift the piece of meat off the heat with one hand while you take a Thermapen reading from the side with your other hand.*

If the meat has already been cooked on both sides, the very centre of the thickest part should have the lowest reading. That is the best place to gauge doneness.

As you experiment with your Thermapen and gain confidence, you will learn to quickly check a piece of meat, a roast or a whole bird in several places and depths to gauge your overall progress during cooking. Lesser quality thermometers such as dial types or slower digitals may not show as much temperature difference. Only a very fast and sensitive thermometer like your Thermapen can show you the exact temperature at its tip. This can be very useful as you try to adjust your cooking methods to achieve a more even cooking process.

6. Resting

Cooked meat should be allowed to 'rest' after cooking and before cutting. This permits the juices to be re-absorbed into the fibres of the meat. If you skip resting you risk losing flavourful juices when the meat is cut. The temperature of the meat will continue to rise a little during the resting period, so you should remove your meat from the oven or grill prior to reaching your target doneness temperature; otherwise, you risk overcooking your meat. The amount of temperature increase is dependent on several factors.

Generally, larger cuts of meat will experience a greater increase in temperature during the rest. This is due to the residual heat flow that is still travelling toward the cooler centre even after the meat has been pulled from the heat source

How you rest your meat will also affect the temperature rise. If you leave the meat uncovered, or you remove it from its roasting pan, or you place a hot steak on a cold surface, more heat will escape into the room and less heat will reach the centre. If too much heat escapes, the meat may grow cold before serving. On the other hand, if you keep your meat in a warm oven or under a heat lamp, there will be a larger heat rise and you may overcook the centre unless you have allowed for this.

Loosely covering the meat with aluminium foil or 'tenting' will conserve some heat and still allow some air circulation to avoid steaming the meat surface; use extra care if you want to preserve a crispy exterior on a turkey or roast. A warmed oven (*with the heat turned OFF*) might be a better resting location for meats with a crust.

Typically, even a small steak or individually cooked piece of chicken will rise at least two or three degrees during resting.

A larger roast or turkey can rise as much as five to ten degrees depending upon conditions. Learn how much rise to expect by taking readings before and after resting with your Thermapen. Start deducting typical resting 'rises' from your final target temperature when you remove your meat from the cooking surface.

Outdoor Grilling

A word about grilling in wind or colder weather: A cooked piece of meat can be exposed to drafts that might cool it before you measure it with your Thermapen. This is particularly true when you flip the meat over on the grill. Once cooked, meat does not 'un-cook' even though its temperature can drop.

Avoid this problem by keeping the grill covered as much as possible and be aware of cold drafts when measuring temperatures with your Thermapen. Remember that the centre temperature is the most important in these types of conditions.

Take a centre reading right before you flip your meat, and then again right after to see if there is any cooling taking place. The highest temperature recorded is your guide, even if it drops again.

Using Oven Alarms with your Thermapen

For oven or barbecue roasting, many people have great success using an 'oven probe' or thermometer alarm in conjunction with their Thermapen.

Remember that the Thermapen cannot be left inside the oven. You have to actually open the oven door to get a reading with your Thermapen, even though the Thermapen is so fast that you can typically close the door again very quickly with minimal loss of heat.

Oven thermometers, on the other hand, have heat resistant probes that can be placed in the food being cooked inside the oven and relay that information by cable to a monitor outside the oven. The problem with oven thermometers is that they can only monitor the one location where you place the probe. They are also typically slower and much less accurate than your Thermapen.*

That's why using the two together can be a real advantage - the oven thermometer lets you know when you're getting close to your target, and the Thermapen confirms the actual internal temperature in several locations.

To use an oven thermometer, place the oven probe so the tip is at the thickest part of the food being cooked. Set the alarm to sound at least ten to fifteen degrees below your final target temperature. When the alarm sounds, open the door and test your food in several different locations with your Thermapen to accurately gauge doneness and allow for resting.

Food Safety & Temperature

You can use your Thermapen to check temperatures and minimise food-borne illness in your kitchen. Bacteria thrive between the temperatures of 5 and 60 °C. Food should not be stored between these temperatures for extended periods of time. Some left over foods must be reheated to minimum temperatures to assure sufficient 'kill rates' of bacteria or parasites.

Holding hot foods .....60 °C or higher

Holding cold foods..... less than 5 °C

Fridge temperature .....5 °C or colder

Freezer temperature..... -18 to -23 °C

The table of recommended temperatures on the back cover of this booklet also provides critical food-safe temperatures as well as chef-recommended temperatures for meats and other foods.



** Remember that different parts of the same large roast or turkey can vary by as much as 10 to 15 °C during the cooking process.*

Thermapen Accuracy

Ready, Set, Go…

The Thermapen is likely the most accurate, most sensitive, and fastest thermometer you have ever owned. On the back of your Thermapen packaging you will find the unique serial number for your Thermapen.

Included with your Thermapen is a Certificate of Calibration certifying that your Thermapen was calibrated in a laboratory against a precision thermometer and found to be accurate at 0 °C (*ice point*) and 100 °C (*boiling point*).

This Certificate of Calibration is traceable, via International agreement, to all major National Standards including UKAS and NIST.*

The Thermapen has been shown to exhibit very low calibration drift over the course of many years. You can have confidence that your Thermapen is accurate to within 0.4 °C and that it will remain accurate.



NOT a stable environment for testing

Because the Thermapen is so much more sensitive and accurate than almost all other digital, instant-read or dial thermometers, side by side comparisons with other home thermometers will often show dramatic differences. If you try to compare readings side by side in food, in the air or in an uncontrolled liquid like running water, you further compromise your test by failing to account for the wide variation of temperatures throughout such substances. That said, if you are determined to check the accuracy of your Thermapen or any other probe thermometer, you can using the following in-home procedures at any time.

** Only thermometers certified by a calibration laboratory traceable to UKAS and an accuracy at least four times better than the Thermapen should be used to do side by side testing and calibration of your Thermapen, only then in a controlled liquid bath stable to better than ±0.1 °C. DO NOT use a home thermometer to check your Thermapen. It's a waste of time. Instead use your Thermapen to check your other thermometers.*

Performing an Ice Bath Test

An ice bath test is the easiest way to test the accuracy of any thermometer, but only if the ice bath is created properly. An ice bath is NOT just a glass of iced water.** Follow this four-step process carefully to create a proper ice bath:

Step 1: Fill a large glass to the very top with ice (*crushed ice is preferred but not required*).

Step 2: Slowly add very cold water until the water reaches about 10 mm below the top of the ice.

Note: *If the ice floats up off the very bottom of the glass at all, the ice bath will likely be warmer than 0 °C (32 °F). Pour off any excess water.*

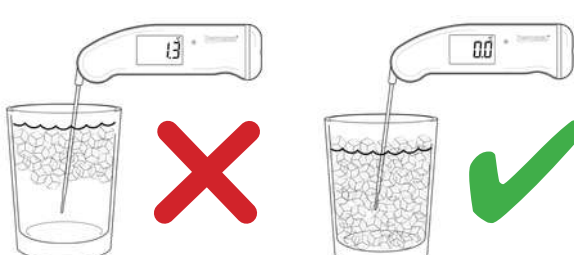
Step 3: Gently stir the ice mixture and let it sit for a minute or two.

Step 4: Insert the probe of the thermometer being tested about 50 mm into the ice mixture and gently stir while you take your reading.

Note: *Be sure to keep stirring gently. If the tip of your thermometer probe comes to rest against a chunk of ice, it will show a temperature below the ice point and if it comes to rest against the sides or bottom of the glass, it may read higher.*

Your Thermapen will drop to 1 °C within 3 seconds and will continue to approach 0.0 °C over the next 2 or 3 seconds. The final resting temperature should be between -0.4 and 0.4°C (*worst case*).

If your Thermapen is accurate in a proper ice bath, it will almost certainly be accurate at all other temperatures.



*** An improperly made ice bath can be off at the ice point by as much as 8 °C. See above illustration.*

Performing a Boiling Water Test

Boiling water tests are more difficult to conduct correctly than ice bath tests and are unnecessary if the ice bath test is conclusive. Water only boils at 100 °C at sea level. The change in atmospheric pressure at elevations above or below sea level alters the temperature at which water boils.

Once you have the target temperature written down, you are ready to begin your boiling water test:

Step 1: Fill a saucepan or pot at least 100 mm deep with clean water.

Note: *Impurities or salt in the water (say, from a water softener) can significantly affect the boiling temperature of water.*

Step 2: Place the pot on a stove (*DO NOT use the microwave*) and turn the heat to high.

Step 3: Wait until the water comes to a strong, rolling boil that does not stop with stirring.

Step 4: As soon as the water reaches a rolling boil, put the tip of the thermometer probe 50 mm deep into the water and gently stir while you take your reading.

Note: *Be careful to keep your probe surrounded by water. If the tip of your thermometer probe comes in contact with the side or bottom of the pot, it will show a higher temperature.*

Your Thermapen will rise to within 0.5 °C of your target boiling temperature within three seconds and continue to approach your target over the next two or three seconds. The final resting temperature should be between 0.4 °C above and below the target temperature you wrote down at the beginning of the procedure (*worst case*).

A Thermapen that reads correctly in either or both of these tests will also be accurate over its entire range of temperatures in any food or liquid. You can have confidence that the temperature shown on the Thermapen display is the true temperature at the tip of its probe.

Re-calibration

In the unlikely event that your Thermapen needs re-calibration or service, this can be performed and new certificates issued by our in-house UKAS Calibration Laboratory.



Cleaning and Caring for Your Thermapen

Cleaning the Probe

Each time you test meat that is not fully cooked, your Thermapen probe may be exposed to harmful bacteria. You should wipe your Thermapen probe clean every time it is exposed to uncooked meat and particularly before probing cooked food that is ready to eat. The same precautions that you use with a knife or a cutting board apply to a thermometer probe.

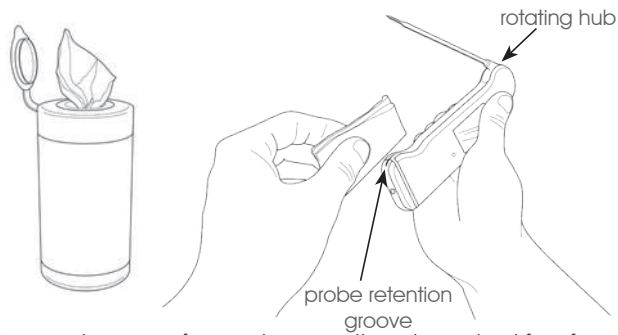
Any non-tainting, anti-bacterial wipe or spray cleaner and paper towels can effectively sanitize your Thermapen probe tip. We offer a range of anti-bacterial Probe Wipes available to purchase at www.thermapen.co.uk.

Cleaning the Thermapen Body

The Thermapen probe and body should be wiped clean after each cooking session and before you put it away. The SuperFast Thermapen 3 is splashproof and will resist exposure to wet hands and splashes from cooking liquids, but the housing should never be submerged in water or any other liquid. The SuperFast Thermapen 4 is waterproof to IP66/67 and can survive short-term submersion. DO NOT put your Thermapen in the dishwasher.

Your new Thermapen features a smooth, almost seamless design with hardly any cracks or crevices where food can get caught and spoil. It is easy to wipe clean. Take special care to fully wipe clean the rotating hub at the top of the Thermapen housing and the probe retention groove at the bottom. These can be cleaned with the edge of your towel or wipe. As a general rule, try to avoid getting moisture, flour or oil on the rotating hub.

Although there is an O-ring seal inside the hub, oils and fine powders can work their way past the seal over time and accumulate in the housing, causing problems with the electrical components.



Proper cleaning after each use will prolong the life of your Thermapen and help keep you safe from harmful bacteria.

Storing Your Thermapen

Your Thermapen has been built to be compact and durable. It can be stored anywhere. However, sharp knives or other kitchen instruments can cause damage if left loose in a drawer together. A variety of Thermapen pouches and wallets are available at www.thermapen.co.uk.

Avoid Overheating the Thermapen Body

Never leave your Thermapen inside an oven, grill, smoker or microwave while cooking. DO NOT leave it under heat lamps or on a hot surface like a grill hood. When checking temperatures above a grill or fire, be careful that the Thermapen body does not get too hot. The Thermapen is very fast, so you can quickly measure temperatures and then move out of the hot zone. If the heat is too high for your hand (*without a protective oven glove*) it is probably too hot for the Thermapen body.

Never put the Thermapen probe on a coal or into an open flame as temperatures above 300 °C can cause internal damage to the probe. Also, use care closing the Thermapen when the probe has been inserted into a hot food or liquid. The probe is metal and may be very hot to the touch. Allow it to cool before closing.

If you are likely to be using your Thermapen in high-heat environments, you may want to consider purchasing a silicone boot for your Thermapen. Silicone offers short-term protection from radiant or contact heat. It will also cushion the Thermapen from knocks and drops, even a drop to concrete. The boot fits snugly and is easy to remove for cleaning.



Customising Your Thermapen

For details on how you can customise your SuperFast Thermapen, including information about…

- switching between °C to °F on the display
- changing the display resolution from 0.1 to 1 °C
- disabling the auto-off feature
- replacing the batteries

...please see the operating instructions included in your new Thermapen's packaging.

Alternatively, visit our website www.thermapen.co.uk for a downloadable PDF of the operating instructions.

Notes



Frequently Asked Questions

Q Why do I get different readings when I measure my food in different places?

A Because the temperature of the food can be different in different places at the same time (*see page 12*).

Q Why did my steak come out medium/well done when my Thermapen reading suggested medium?

A Because meat will continue to cook after you take it off the heat. You should allow for this rise (*see pages 11 to 13*).

Q Why is my chicken still bloody when my Thermapen says its done?

A Because the bone marrow in chicken bones can release blood while cooking. It is safely done.

Q Why does my new Thermapen read 3 to 5 °C different than my old thermometer when measuring food?

A Because your old thermometer will not have been as accurate as your new Thermapen (*see page 16*).

Q Why does my Thermapen show a reading higher than 0 °C (32 °F) when I put it in ice water?

A Because the temperature is higher than the ice point unless you take the time to create a proper ice bath (*see page 17*).

Q Why does my Thermapen take up to 6 seconds to get to 0.0 °C in a proper ice bath?

A The Thermapen will get to within 0.5 °C (1 °F) within 3 seconds or less but may take 2 or 3 seconds longer for the last few tenths of a degree to settle (*see page 17*).

Q Why doesn't my Thermapen seem to settle on a final temperature in food? It keeps changing.

A Because the temperature of food keeps changing while it is cooking and your Thermapen is accurate enough to see it *(see page 7)*.

Q Am I supposed to clean my Thermapen? How and how often?

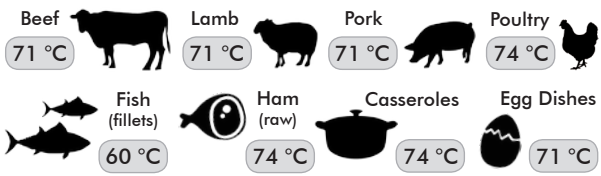
A You should wipe the probe clean any time it comes in contact with raw meat and you should clean the whole Thermapen after each use *(see page 19)*.

Chef Recommended Temperatures*

Meat	Rare	Medium	Well
Beef, Lamb & Veal	52 °C *(125 °F)*	60 °C *(140 °F)*	71 °C *(160 °F)*
Chicken, Turkey & Duck	-	-	74 °C *(165 °F)*
Pork Roasts, Steaks & Chops	-	63 °C *(145 °F)*	71 °C *(160 °F)*
Fish	-	-	60 °C *(140 °F)*

**the above temperatures are guidelines only - always check the core temperature of food with an accurate thermometer such as a Thermapen!*

Know when your food is cooked



Water Temperatures *(at sea level)*

Poach	71 - 82 °C *(160 - 180 °F)*	Simmer	85 °C *(185 °F)*
Low Simmer	82 °C *(180 °F)*	Slow Boil	96 °C *(205 °F)*
		Rolling Boil	100 °C *(212 °F)*

Baking Temperatures

Bread	77 °C	*(170 °F)*	*Rich Dough*
Bread	88 - 93 °C	*(190 - 200 °F)*	*Lean Dough*
Water temp	41 - 46 °C	*(105 - 115 °F)*	*to add to yeast*
Butter	2 °C	*(35 °F)*	*Chilled*
Butter	18 - 19 °C	*(65 - 67 °F)*	*Softened*
Butter	29 - 32 °C	*(85 - 90 °F)*	*Melted & Cooled*
Sponge Cake	95 - 98 °C	*(203 - 208 °F)*	
Fruit cake	98 - 100 °C	*(208 - 212 °F)*	

Confectionery / Sugar Syrup Temperatures

Thread	110 - 112 °C	*(230 - 234 °F)*	*Syrup*
Soft Ball	112 - 116 °C	*(234 - 240 °F)*	*Fondants, Fudge & Pralines*
Firm Ball	118 - 120 °C	*(244 - 248 °F)*	*Caramel*
Hard Ball	121 - 130 °C	*(250 - 266 °F)*	*Divinity & Nougat*
Soft Crack	132 - 143 °C	*(270 - 290 °F)*	*Taffy*
Hard Crack	149 - 154 °C	*(300 - 310 °F)*	*Brittles, Lollipops & Hardtack*
Caramel	160 - 177 °C	*(320 - 350 °F)*	*Flan & Caramel Cages*