

The fast and the fabulous

We've reviewed solo microwaves with great reheating powers and grill microwaves which will do you a lovely chicken in super-fast time

In kitchens all across the country, microwaves sit sadly in corners mourning the days when they were the next big innovation in cooking technology.

Around 85 per cent of UK households own a microwave but most have been demoted to simple tasks, like reheating meals, heating drinks and defrosting. Cheap microwaves are now widely available from supermarkets and you can pick up a solo oven for around £30.

But it's not all doom and gloom for the

humble microwave – models with grills and convection cooking (combination ovens) or just grills are widely available for people who want to upgrade or do more 'real' cooking with their microwaves. Those who want to trade up to a grill microwave can often expect a stylish product with digital displays (all of our grill models on test have these).

Metallic finishes, particularly stainless steel, are the most popular look for both solo and grill microwaves.

Around 85 per cent of households own a microwave

What you should look for

GRILL

Grill models use a heating element to brown food and give it a more attractive appearance and texture. They have a high metal rack to bring food closer to the element

AUTO-REHEAT BUTTONS

You enter the weight of the food and the microwave will calculate how long it should take to cook

OVEN SHELF

The Daewoo KOR-638 RDBK (6) has a shelf you can fit which lets you cook more than one dish at a time. You'll need to double the cooking time if you're making two meals but they will be ready at the same time

PIZZA FUNCTION

Many of the microwaves on test have a button or a 'menu' item for cooking or reheating pizza. These tend to work better with the grill models than the solos, as the grill crisps up the pizza and browns the top



1 SOLO

75% Panasonic NN-T573SBBPQ £150

This is an extremely stylish, high-tech microwave that does its job expertly.

It reheats food quickly and evenly without burning or drying it out. It was the only microwave we tested with really good auto reheat buttons, which take into account the fact that different foods require different cooking times.

It's available from Comet, Currys and John Lewis.

WE LIKE This spacious oven will take 35cm plates, great for reheating food on serving dishes.

Cheapest store John Lewis **Measured heating category E** **Number of power levels** Five **Recipes supplied** Yes **Delay start** Yes **Childproofing** Yes

WHICH? BEST BUY



4 SOLO

71% Sanyo EM-S1065S £50

This is another excellent all-rounder that doesn't have fancy features and buttons. It's great at reheating and only the Panasonic (1) can beat it for maintaining the quality of your food. It does a reasonable job of defrosting meat and is generally simple to use. It's available online.

WORTH KNOWING This model took just six minutes to defrost mince – the quickest on test.

Available Online **Measured heating category E** **Number of power levels** Six **Recipes supplied** No **Delay start** No **Childproofing** No

WHICH? BEST BUY



2 SOLO

74% Kenwood KEN ST/SS25 £100

This spacious microwave reheats quickly and evenly, without drying food or leaving cold and hot spots.

It defrosts mince evenly and quickly without cooking the meat. Our only niggle is that its door doesn't have a release button and is very stiff to open.

It's exclusive to Currys.

WE LIKE The blue LCD display looks good and uses a relatively small amount of energy if left on standby.

Cheapest store Currys **Measured heating category** E
Number of power levels Five **Recipes supplied** No
Delay start Yes **Childproofing** Yes

WHICH?
BEST
BUY

5 SOLO

69% Daewoo KOR-6Q8GSL £100

This good-looking oven is really easy to use and has a clear set of instructions, too. It reheats evenly and quickly, without drying food out. It has an auto reheat button which scores poorly, however, mainly because it bases its cooking times on food weight, not type.

It's available from Currys.

WORTH KNOWING To make your kitchen more streamlined, the Daewoo can be built in.

WHICH?
BEST
BUY

Cheapest store Currys **Measured heating category** D
Number of power levels Ten
Recipes supplied Yes **Delay start** No **Childproofing** Yes



3 SOLO

73% Hinari EMX750SS £60

This is a simple, inexpensive oven with no digital display and no special auto buttons. It manages the essential tasks extremely well – it reheats quickly and evenly and, if you're heating up a number of meals for the family, it will cook consistently time and time again (see 'Temperature drop-off', p60). You can buy it online.

WORTH KNOWING This used the least energy of the ovens on test to reheat a ready meal.

Available Online **Measured heating category** E
Number of power levels Six **Recipes supplied** No
Delay start No **Childproofing** No

WHICH?
BEST
BUY

10 GRILL

68% Panasonic NN-K125MBBPO £80

The best of our grill microwaves will reheat food evenly if you set the time yourself, and is excellent at defrosting. But its greatest asset is its grill – it cooked a decent chicken in a very speedy 35 minutes and a crispy potato in less than 13 minutes. It's available from Argos, Comet and John Lewis.

WE LIKE This is the easiest to use of all the ovens, with a clear display and intuitive controls.

Cheapest store John Lewis **Measured heating category** D **Number of power levels** Five
Recipes supplied Yes **Delay start** No **Childproofing** Yes

How we test



How a hedgehog helps us measure food temperature

Hot and spiky

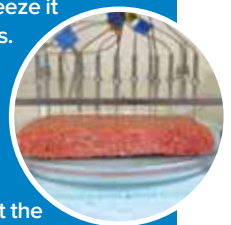
What do you get if you put a hedgehog in a curry? No, it's not a spiky vindaloo; the answer is, in fact, a precise way to measure the temperature distribution and evenness of a reheated ready meal. A 'hedgehog' is the nickname for an array of 39 very fine thermometers that we use to measure the temperature of a microwavable meal.

Bright blue lasagne

In addition to curry, pasta, pizza and jacket potatoes, we use a substance called TX151 to test the cooking ability of our microwaves. It's bright blue and has a similar consistency to a lasagne when it's cooked in a microwave. Unlike lasagne, though, it's easy to produce a number of identical batches of TX151, so every oven has exactly the same thing to heat.

Defrosting tests

To test how well a microwave oven defrosts meat, we shape lean minced beef to specific dimensions and freeze it for at least 12 hours. We defrost it and leave it to stand for five minutes before setting the hedgehog to work again. We work out the meat's maximum and minimum temperatures and check for any hot or cold spots.



The simple, cheap Hinari manages essential tasks extremely well

Temperature drop-off

Not all ovens heat food continuously to a safe temperature

If you use some microwave ovens continuously, the temperature to which they cook food tends to decrease. In some cases the magnetron, which produces the microwaves, heats up and is unable to deliver the same amount of power.

In practice this means that, if you're planning to cook a number of meals one after the other, each for the same length of time, the second or third meal may not be cooked properly.

The Food Standards Agency recommends that food is cooked at 70°C for at least two minutes, to kill off all the germs that can cause food poisoning.

After continuous use, the worst of our ovens for temperature drop-off, the Baumatic BTM17.2SS (14) went from cooking to a safe minimum temperature of around 70°C to cooking to a minimum temperature of just over 50°C – well below the recommended guidelines. The Hinari EMX750SS (3), on the other hand, showed no drop-off at all. In fact, the minimum temperature increased fractionally.



Insider information

Our home appliances expert Rosie Fletcher explains how manufacturers are staying at the cutting edge of technology

Microwave technology is hardly a rapidly changing area, unlike mobile phones and TVs, but manufacturers are still trying to introduce improvements. The inverter that Panasonic has developed is a nice idea – it's an attempt to make cooking on low and medium settings more even. The inverter is a circuit board that controls the flow of power so that, on low and medium settings, the microwave cooks constantly, with

reduced power, rather than pulsing on and off on full power as most microwaves do.

Heating labels not relevant

The current labelling scheme, where manufacturers of microwaves and microwavable meals label their products with a heating category between A and E, is about 14 years old and we've found in the past that the stated ratings aren't always accurate. And more powerful microwaves don't necessarily cook better or faster, which makes the labelling scheme even less relevant.

Use the label as a general guideline but don't take the timings on your microwavable meals as the gospel truth – make sure the food is cooked until it is piping hot throughout each time.



Facts & scores

Hot gossip served up by our laboratory experts

Cooking in stages

This Panasonic has multi-stage cooking, which means you don't have to return repeatedly to the microwave – you could set it to defrost a meal, leave it to stand and then cook it on full power. You can program three stages on this oven; other ovens have only two.

Bad display design

You have to view the digital panel on this Daewoo through the top right-hand corner of the door. With the door closed it's blurry and, from certain angles, can't be read.

Standby

This Sanyo uses 3.4W of power while on standby, which, if the microwave was left plugged in for a year, would equate to 29.78kWh, or enough power to run a 60W light bulb constantly for more than 20 days.

Heating category

This Baumatic is listed as heating category E but we found that its power output was actually less than the minimum for this category, making it a D. Many of the microwaves on test were either a lower or higher heating category than described by the manufacturer.

MODEL

SOLO

- 1 **PANASONIC** NN-T573SBBPQ
- 2 **KENWOOD** KEN ST/SS25
- 3 **HINARI** EMX750SS
- 4 **SANYO** EM-S1065S
- 5 **DAEWOO** KOR-6Q8GSL
- 6 **DAEWOO** KOR-638 RDBK
- 7 **PANASONIC** NN-E273SSBBPQ
- 8 **BELLING** BEL-SJ/SS17
- 9 **HINARI** MX745GLSL

MODEL

GRILL

	PRICE (£)
10 PANASONIC NN-K125MBBPQ	80
11 HINARI EMX799GMSSE	90
12 SANYO EM-G2565	60
13 SWAN SM1115	70
14 BAUMATIC BTM17.2SS	115

USING THE TABLES

We've tested widely available mid-range grill and solo microwaves from the market's leading manufacturers. The more stars, the better. We deducted points from a microwave's total test score if it failed to cook food to the recommended safe temperature of 70°C.

Specification

Price For Best Buys we give the cheapest widely available high-street price as we went to press. Prices for other models are a guide to what you can expect to pay. Online prices are in *italics*.

SPECIFICATION			WHICH? TEST PERFORMANCE										SCORE %
PRICE (£)	SIZE (cm) (h x w x d)	MAX PLATE SIZE (cm)	SPEED OF COOKING	ENERGY USED	QUALITY OF FOOD	EVENNESS OF COOKING	DEFROST	EASE OF USE	AUTO BUTTONS				
									REHEAT	POTATO	PIZZA		
150	31x51x38	35	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★★	★★★★★	★★★★	★★★	n/a	75
100	31x51x41	33	★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	n/a	★★★	★★	74
60	30x46x35	28	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★★	★★★★★	n/a	n/a	n/a	73
50	30x46x34	28	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★★	★★★★★	n/a	n/a	n/a	71
100	28x47x33	29	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★★	★★★★★	★	★★	n/a	69
70	28x47x35	29	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★★	★★★★★	★	n/a	n/a	64
80	28x46x33	29	★★★	★★★	★★★★	★★★★	★★★★	★★★★★	★★★★★	★	★★	n/a	56
45	28x46x34	28	★★	★★★★	★★★★★	★	★	★★★★★	★★★★★	★	★	★★★★	48
55	28x46x35	29	★★	★	★	★	★★★★★	★★★★★	★★★★★	★	★★★★	★★	43

SPECIFICATION		WHICH? TEST PERFORMANCE											SCORE %
SIZE (cm) (h x w x d)	MAX PLATE SIZE (cm)	SPEED OF COOKING	ENERGY USED	QUALITY OF FOOD	EVENNESS OF COOKING	DEFROST	EASE OF USE	CHICKEN	GRILL	AUTO BUTTONS			
										REHEAT	POTATO	PIZZA	
26x46x33	28	★★	★★★★	★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★★	★★★★★	★	★★★★★	★★★★★	68
30x46x35	28	★★★★	★★★★★	★★★★★	★★★★★★	★★★★	★★★★★★	★★★★★★	★★	★	★★★★	n/a	63
30x46x36	28	★★★★	★★	★★	★★★★	★★	★★★★★★	★★★★★	★★★★	n/a	n/a	n/a	58
30x46x35	28.5	★★	★★★★	★★★★	★★★★★★	★★★★	★★★★★★	★★★★★	★★★★	★	★★★★	n/a	56
28x46x34	28	★	★★★★	★★	★★★★	★★★★★★	★★★★★★	★★★★★★	★★	★	★★	★★	54

Max plate size The largest diameter plate that will fit through the microwave's door without tilting.

Test performance

Speed of cooking How long it takes a microwave to heat a ready meal to a minimum temperature of 70°C. **Energy used** The more energy a microwave uses to heat a ready meal to 70°C, the lower its score. **Quality of food** The more water the food loses during heating, the lower the microwave's score. **Evenness of cooking** Whether a ready meal is left with any hot or cold spots when it's been heated.

Defrost How evenly the microwaves defrost minced meat. **Ease of use** This includes setting the clock, opening and closing the door, loading and unloading the oven, using the power and time controls, reading the display, cleaning, and the instructions and information provided by the manufacturer. **Chicken** How well the grill ovens cook a whole chicken. **Grill** How widely and evenly the grill browns slices of white, crustless bread. **Auto buttons** How well the auto buttons, where present, cook a ready meal substitute (see the 'Bright blue lasagne'

section in 'How we test', p59), jacket potatoes, pizza, curry and pasta.

Score

Ignores price and is based on:

Grill microwaves

Reheating a ready meal in a cold oven **30%**
Ease of use **25%**
Defrosting **20%**
Temperature drop-off **10%**
Grill **10%**
Chicken **5%**

Solo microwaves

Reheating a ready meal in a cold oven **35%**
Ease of use **29%**
Defrosting **24%**
Temperature drop-off **12%**

Contacts

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