

Miele's guide to dishwashing

Helpful hints and tips on getting the best out of your dishwasher





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Alterations

Due to continuous product development, we reserve the right to make changes and to make minor variations to dimensions and colour, to correct printing errors and other errors, and to make innovations and alterations to the product range. Colour reproduction of appliances in images may vary from the original appliance colours due to printing techniques.

The clever guide to dishwashing

At around the turn of the last century housemaids were responsible for the laborious and strenuous duty of housework. Today, increasingly more people prefer to leave the washing-up to a dishwasher rather than washing up by hand.

Thanks to our decades of experience, Miele dishwashers are able to cope with all every day challenges. Whether removing stubborn stains or cleaning delicate glassware, they're not a problem for Miele dishwashers.

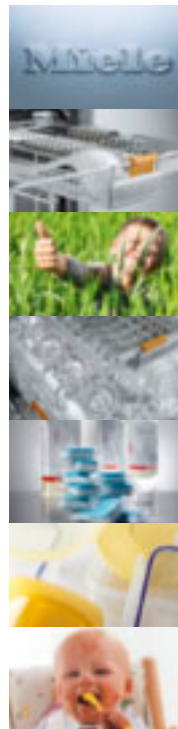
With this brief guide we would like to share with you our many years of experience gained in the field of dishwashing. From the fundamentals of dishwashing, to the best care of your valuable crockery and glassware, to the most economical use of your dishwasher, you will find invaluable pieces of advice and tips in this guidebook.*

We hope you enjoy getting to know the world of Miele dishwashing and wish you many years of clean and sparkling crockery!

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Miele – "IMMER BESSER" for more than a century

Miele – a company with more than 100 years of tradition. Its headquarters is in Gütersloh, in the heart of Westphalia. Right from the outset in 1899, when the company was founded, it devoted itself to a company philosophy which can be condensed into just two words, expressing what really matters: "IMMER BESSER" ("FOREVER BETTER").



Miele's dishwasher plant in Bielefeld

"IMMER BESSER": briefly described, these two words stand for innovation, quality, longevity and contributing towards protecting the environment. Not without good reason that each and every one of Miele's appliances are tested to last 20 years.*



* Corresponds to approx. 7500 programme cycles, in a blend of programmes with varying cycle times



Miele – "IMMER BESSER" for more than a century

Quality and durability

Like all other Miele appliances, Miele dishwashers are an example of Miele's proverbial quality and are tested to the equivalent of 20 years usage.

At Miele, attention is paid to quality long before series production starts.

Quality test prior to production starting

A fine example of the extensive quality tests Miele dishwashers have to pass with flying colours is the door endurance test. In the laboratory the dishwasher door is opened and closed 100,000 times.

Only when all rigorous tests have been passed is a Miele dishwasher considered good enough to go into series production.



Quality control during the production process

Quality is monitored on a continuous basis during the production process.





Miele professional solutions for special demands

Commercial dishwashers for a top-notch sparkling finish are ideal for kitchens in office blocks, clubhouses, schools and kindergartens, in hotels and restaurants, for small kitchens on hospital floors and nursing homes, as well as for catering businesses and canteens in companies.

Four simple questions lead you to the right dishwasher for you which meets your individual requirements in terms of performance, programme durations, convenience and efficiency.

www.mydishwasher.com.au

Miele – "IMMER BESSER" for more than a century



A journey through time from 1899 to the present day.

- 1899** Carl Miele and Reinhard Zinkann found Miele & Co. in Herzebrock. The first product is a cream separator.
- 1905** At the dawn of Miele Marketing: Miele's motto "Immer besser" (Forever better) is developed by the founding fathers.
- 1907** Miele moves its headquarters from Herzebrock to Gütersloh.
- 1916** The second Miele plant is founded in Bielefeld.
- 1929** The first electric domestic dishwasher in Europe is developed by Miele. Miele launches the first fully automatic dishwasher.
- 1960** The first built-in dishwasher from Miele blends in perfectly with kitchen cabinetry.
- 1967** The 250,000th dishwasher rolls off the production line at the Bielefeld plant.
- 1968** Miele presents the world's first dishwasher with sensor electronics.
- 1978** The first fully integrated Miele dishwasher is introduced.
- 1981** The controls are integrated and not visible from the outside.
- 1986** The appliances' electronic units are developed and produced in-house at Miele in Gütersloh.
- 1987** Miele develops the unique cutlery tray. Cutlery is washed and dried hygienically clean.
- 1990** Miele now also produces 45 cm wide dishwashers.

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- 1994** Miele XXL dishwashers utilise the space gained through the new height of the worktop perfectly and offer even more flexibility.
- 1999** Miele develops Perfect GlassCare - ideal for the gentle treatment of glassware.
- 2004** 75 years of dishwashing with Miele! Highlights of a new range of dishwashers include an in-door salt container and flexible basket designs.
- 2006** The Miele CareCollection with its own range of cleaning and care products for dishwashers is launched. These products are specifically formulated for use with Miele dishwashers.
- 2007** New highlights: AutoClose helps the dishwasher door close softly and almost by itself. The AutoOpen drying feature, which opens the door automatically, speeds up the drying process.
- 2009** Miele dishwashers celebrate their 80th birthday.
- 2010** The new Miele G 5000 dishwasher series offers unique characteristics: the 3D cutlery tray, BrilliantLight and reduced consumption values.
- 2011** Riedel exclusively recommends Miele dishwashers for the gentle cleaning of their high-quality glassware.
- 2014** Miele launches the new G 6000 generation of dishwashers. The highlights are the unique Knock2open technology for handleless kitchen designs and the FlexiTimer with EcoStart which makes the utilisation of time-variable off-peak electricity tariffs possible.

Sparkling selling points

Responsibility has a long tradition at Miele. Those who decide to purchase a Miele domestic appliance today can rest assured that they have made both a sustainable and a reliable choice. This includes environmentally friendly production techniques that go easy on natural resources, state-of-the-art technology and durable products that are tested to the equivalent of 20 years usage.

We have changed the world of dishwashers with the 3D cutlery tray, Comfort basket design and other features unique to Miele. Above all else, the perfect interplay between convenience and gentle care makes our dishwashers a cut above.





Sparkling selling points



The highlights of
Miele dishwashers

**Exclusive
to Miele**

**Patented 3D cutlery tray* – a
new dimension in cutlery care**

Miele's 3D cutlery tray is one-of-a-kind: it can be adjusted to change not only its width and depth, but also its height, thus adapting to every loading situation. Even bulky items such as soup ladles and whisks can be easily accommodated.

**Exclusive
to Miele**

The perfect solution for a handleless design –

Knock2open*

Not wizardry, just Miele: Knock2open provides the perfect solution for a handleless kitchen design. By tapping the front of the fully integrated Miele dishwasher twice, the door opens by about 10 cm completely automatically using a clever opening mechanism. A convenience you will enjoy every day.



Sparkling selling points

The highlights of Miele dishwashers



***Highest level of energy efficiency**

Miele – in a class of its own

Miele machines combine top cleaning and drying performance with extremely low electricity and water consumption:

- Energy consumption: 225 kWh per year*
- Water consumption: 9.4 l per wash cycle†

Best performance and low consumption.



Fresh water dishwashers with water consumption from 6.5 l saving valuable water

Miele dishwashers rely solely on fresh water and in the Sensor wash programme wash crockery with as little as 6.5 litres of water - much less than the contents of a sink. Electricity consumption is also reduced to new all-time lows: in the ECO programme, Miele dishwashers achieve energy consumption values of only 0.83 kWh.



**Exclusive
to Miele**

BrilliantLight* – Perfect illumination for easier loading

4 LEDs immerse the dishwasher interior in brilliant light. The area at the front of the dishwasher and the baskets pulled out for loading or unloading are also brightly lit. This significantly improves loading and unloading.



**Exclusive
to Miele**

AutoOpen drying† – for perfectly dry crockery

The dishwasher door opens automatically at the end of a programme. Glassware and crockery is perfectly dried and cools down faster. Even plastic items are properly dried. AutoOpen drying shortens programme times and reduces energy consumption significantly.

* Patent EP2233061B1

† Patent EP1733675B1, US7896972B2

Taking responsibility has long been a tradition at Miele. For generations we have been true to our motto of being "Immer besser" which stands for the high demands we place upon our domestic appliances. The exceptional efficiency of all Miele appliances results in extremely low consumption values which are not only easy on the environment but also save money.

Modern Miele dishwashers clean your crockery in the most economical and ecological way. They not only consume considerably less water and energy than washing up by hand, but also save you half of the costs. Consequently, water consumption has been reduced over the past 30 years by 85%. It also means that you can have more time to enjoy the better things in life.

Cost and time comparison when dishwashing



¹ Average costs per dishwashing cycle for 12 place settings (incl. investment). Costs shown are in Euros.

² Time required per dishwashing cycle with 12 place settings

Source: R. Stamminger; Data and facts on dishwashing by hand and in a dishwasher. Söfw-Journal 132, 3-2006.



Gentle treatment of crockery and glassware

Gently and perfectly cleaned high-quality glassware

Riedel recommends Miele dishwashers

Can you really wash delicate, expensive wine glasses in a dishwasher? Yes, as long as it's a Miele! With a unique combination of intelligent appliance features Miele is THE specialist when it comes to gentle care of glassware.

- **3D cutlery tray:**

ample space even for tall stemware

- **Comfort basket design:**

secure hold for wine glasses

- **AutoOpen drying:**

gentle, sparkling drying without the need for polishing

- **Perfect GlassCare:**

ensures that the water in your machine has the precise mineral content. This helps protect your glassware and keeps stemware looking as good as new for longer

- **Sensor wash gentle programme:**

perfect control of glasscare parameters

- **CareCollection:**

perfectly matching detergents with special glass protection formula



Georg Riedel recommends that Riedel glasses (hand-blown and machine-blown) be washed in a Miele dishwasher.

"That our high-end glassware can be perfectly and gently washed in a Miele machine is quite new to us. A Miele dishwasher makes perfect glasscare easy. To ensure the gentle cleaning of our glasses, we expressly recommend them to be washed in a Miele dishwasher. This produces better results than dishwashing by hand."



Gentle treatment of crockery and glassware

Dishwashing programmes

You're guaranteed to be prepared for every situation with Miele wash programmes. Whether time is at a premium, the crockery is delicate, the soiling is heavy or you're in need of energy-saving programmes.



ECO

Extremely economical: this water and energy-saving programme is suitable for normally soiled mixed loads.



Sensor wash

For moderately soiled crockery: for example, mixed loads with all types of food residue. With the aid of the AutoSensor, the degree of soiling is determined and the programme modified accordingly by adjusting the parameters of temperature, water quantity and cycle duration. The integrated glasscare ensures gentle cleaning of glassware.



Light soiling 55°C

Quick and efficient: this programme reliably cleans lightly dried-on to moderately soiled crockery.

Gentle treatment of crockery and glassware

Dishwashing programmes



Intensive 75°C

Maximum cleaning performance: pots, pans, etc. are cleaned residue-free.

Tip: when using powder detergent, we recommend a detergent quantity of 120% to achieve optimum cleaning results.



Sensor wash gentle

Gentle and with care: this programme is ideal for temperature-sensitive and lightly soiled crockery.



Quick wash 40°C

The speedy programme for fresh and lightly dried food deposits. With the short programme duration of about half an hour, dishes are able to be used again quickly – ideal during a party, for example.



**Exclusive
to Miele**

Hygiene

Hygienically clean: baby bottles, chopping boards, etc. are thoroughly cleaned and bacteria-free, certified by Germany's Institute for Applied Research GmbH.

Gentle treatment of crockery and glassware

Dishwashing programmes



ExtraQuiet

For mixed loads with slightly dried-on food residue. The ExtraQuiet programme from Miele washes with only 38 decibels – so quiet as to be almost imperceptible. Ideal for open-plan kitchens and for washing at night.



SolarSave

Unbeatable: with the SolarSave programme you can achieve an extremely low electricity consumption of 0.05 kWh per cycle.

As the water entering the machine is not reheated, the SolarSave programme is ideal for households with heated water supplied by solar-thermal panels, a heat pump or gas/oil central heating.

Special-purpose programmes

Pasta/Paella

For dishes containing starch: this programme removes pasta, rice and potato residue-free.

Glasses warm

Brilliant appearance: this programme cleans and dries beer glasses and guarantees a perfect head.

Tall items 65°C

By removing the upper basket, more space is created in the lower basket for large, bulky items such as tall vases.

Maintenance programme

As and when required: this programme ensures the effective and thorough cleaning of your dishwasher.

Tip: This programme should be used in conjunction with the Miele dishwasher and washing machine cleaner for the best maintenance of your dishwasher.

Gentle treatment of crockery and glassware

Dishwashing options

Miele dishwashing options allow you to adjust every dishwashing programme to individual load requirements.



Short

Sometimes things have to be done on the double: the "Short" option reduces the length of a programme by up to 30 minutes.



Intensive lower basket

Strong and gentle at the same time: this option for enhanced cleaning performance in the lower basket can be added to a programme.



Energy save

Sensible choice: this option reduces the energy consumption of programmes in which this option is available by up to 20%. Temperatures and programme durations are modified to achieve these savings.



Extra dry

Thanks to the extended drying phase and the increased final rinse temperature, everything is perfectly dried, even glasses and plastic items.

Basket design

General information on loading your dishwasher

- Make sure the water from the spray arms can reach all items in the dishwasher. Items should not touch each other or be placed inside one another.
- Before switching the dishwasher on, ensure that the spray arms can rotate freely and that there are no obstructions in the path of the spray arms. Miele machines have three spray arms for perfect cleaning results.
- Place containers at an angle in the basket and with the cavity facing down. Water residue can drain off more easily and items will dry better.

Tip: The adjustable components of Miele dishwasher baskets are coloured yellow.





Ergonomic basket handles

Ergonomic basket handles simplify loading and unloading. Superior quality materials emphasise Miele's claim to quality.

Basket design – lower basket



**Exclusive
to Miele**

MultiComfort in lower basket

The unique MultiComfort zone allows plates of different sizes (max. 35 cm) to be accommodated in three rows. Chopping boards, serving platters, large bowls, dishes and tall beer glasses can be accommodated easily. For larger pots and pans and bulky items, the entire lower basket can be rearranged to provide a flush, flat surface.



Ideal for glassware

Secure positioning of glasses: height-adjustable glass holders help provide a secure hold for stemware, ensuring spotless, gentle cleaning.



Glass rack in lower basket

The glass rack offers you the option to create a third row in the lower basket for glasses. This allows you to position up to 13 long-stemmed wine glasses securely in the lower basket.



Hinged bottle holder*

Bottles, vases and other tall and slim items require a secure hold in the lower basket to stop them from toppling over. The bottle holder is designed to allow jets of water to access the interior of bottles. If the space is required for other items of crockery, the bottle holder can be simply folded down.

*Patent: EP2332458B1

Basket design – upper basket



**Exclusive
to Miele**

Jumbo cup rack in upper basket

Large coffee mugs, standard coffee and tea cups and cereal bowls – the width-adjustable jumbo cup rack is the perfect place for a wide variety of items and helps to save you space.



Height-adjustable upper basket*

On all Miele dishwashers, the upper basket is height-adjustable and can even slope to one side. A total of 9 positions are possible. This enables you to utilise the potential of the wash cabinet every time you run a programme.



Height-adjustable glassware rail in upper basket

Many guests, many glasses? No problem for a Miele dishwasher. The height-adjustable glassware rail on the left-hand side of the upper basket creates even more space for long stemware.



Hinged row of spikes in upper basket

The left side of the upper basket can be loaded with cups and glasses or – with a folded down row of spikes – can be turned into a flat surface for bowls and casserole dishes.

Basket design

The best place for cutlery



Cutlery basket

The new cutlery basket has a modern and high-quality appearance. It is extremely versatile as it can be positioned over the front row of spikes in the lower basket. Customers who already own a dishwasher with cutlery tray can retrofit the cutlery basket any time.



Cutlery tray

Load cutlery in the tray as shown. Every piece of cutlery has its own secure place and is perfectly cleaned and dried. Items are not scratched and can be removed hygienically, fast and ergonomically. On top of this, more space is made available in the lower basket.

The height of the middle section can be adjusted in models with the 3D cutlery tray. This enables even bulky items such as soup ladles or egg whisks to be easily

accommodated. The side sections of the 3D cutlery tray are also very versatile: both side sections can be simply and quickly moved into the centre if required. This frees up space in the upper basket for tall items such as long-stemmed wine glasses.

Tip: To make unloading much easier, cutlery should be grouped in zones: one for knives, one for forks, one for spoons, etc.

Tip: The middle section of the cutlery tray is slightly deeper than the other sections. It provides space for larger cutlery items such as egg whisks, large wooden spoons or soup ladles.




Insert for Cappuccinatore

On Miele coffee machines with the Nespresso system, the Cappuccinatore provides hot milk or creamy milk froth. The dishwasher insert for the Cappuccinatore assures that all individual parts can be thoroughly and hygienically cleaned.

The Miele CareCollection and care products

How to achieve consistent cleaning results despite various water hardness levels



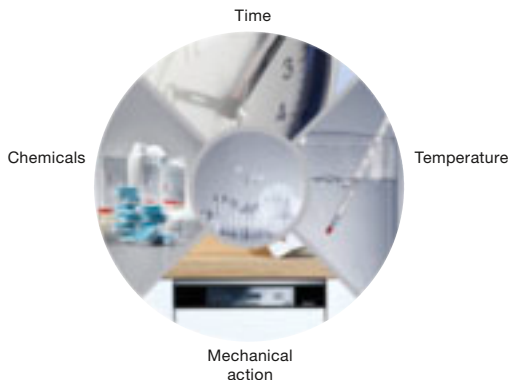
In order to achieve good cleaning results, the dishwasher needs to operate with soft water (low in minerals).

To achieve repeatedly good cleaning results independent of regional water hardness all Miele dishwashers are equipped with a water softener. The water softener softens the incoming water and ensures ideal conditions during the dishwashing programme.

Hardness scale	Water hardness	Water hardness level (°dH)
soft	< 1.5	< 8.4
medium	1.5–2.5	8.4–14
hard	> 2.5	> 14

Tip: In the event of water hardness levels altering in your area, key the higher value into your dishwasher. This ensures that your water softener is always reactivated in time.

There are four factors involved in attaining the perfect cleaning results in a dishwasher. These factors form the so-called 'Sinner' circle shown below.



'Sinner' circle in dishwashing

Miele has already perfectly matched three factors. Add the CareCollection to the equation and now all four factors are covered.

Miele's CareCollection and care products have been developed and tested by experts in cooperation with Miele and are therefore perfectly tailored to Miele appliances.

Before we look at the Miele CareCollection and care products in more detail, we would like to give you some advice on the fundamentals of dishwashing.

The Miele CareCollection and care products

Simply perfect dishwashing - with Miele

When you decided to buy a Miele dishwasher, you chose excellent quality and performance. However, ensuring that your dishwasher always delivers the best possible results will also depend on your choice of dishwasher detergent, rinse aid and dishwasher salt, as cleaning results can vary depending on the brand used. For this reason, Miele offers detergents specifically designed for Miele dishwashers.





Miele dishwasher tablets

Special Miele formula – for the best cleaning results in Miele dishwashers.

No need to unwrap thanks to water-soluble wrapping. Phosphate free - helps protect the environment.

- Sparkling results even in the face of stubborn soiling
- Contains rinse aid for sparkling results
- Salt substitute to prevent scaling
- Improved glass-protection formula against corrosion
- Special protection against stains on silverware and stainless steel
- Low-temperature formula, thanks to modern enzymes
- Machine-maintenance additive against greasy deposits.



Miele powder detergent

Special Miele formula – for the best cleaning results in Miele dishwashers.

- With super-active enzymes - effective even at low temperatures
- With active oxygen for thorough cleaning
- Glass-protection formula to prevent glass corrosion.

The Miele CareCollection and care products

Miele rinse aid



Special Miele formula – for the best drying results and gentle treatment in Miele dishwashers.

- Sparkling finish on your glassware
- Supports the drying process of your crockery
- With glass-protection formula to prevent glass corrosion
- Precise dispensing thanks to the special cap (cf. honey bottle).

Tip: Wipe up any spilled rinse aid. This prevents over-foaming occurring during the next programme.

Miele dishwasher salt



Special Miele formula – for the best cleaning results in Miele dishwashers.

- Extra coarse-grind
- Prevents deposits.

Tip: Please ensure that you only use rinse aid designed for domestic dishwashers. Washing up liquid or detergent may irrevocably damage the rinse aid reservoir.

You achieve excellent results with Miele tablets – even without additional rinse aid and salt. We recommend the complete CareCollection system from Miele to achieve perfect results: tablets, rinse aid and salt are made to complement one another – perfect for Miele dishwashers. In areas with hard water it is advisable to use salt and rinse aid.

Care collection

The Miele CareCollection can be ordered from Miele's online shop (depending on country) or by calling Miele (see back cover for contact details).



www.miele-shop.com

The Miele CareCollection and care products

Care products – top care for many years of reliable service.

Miele dishwasher conditioning agent



Miele's dishwasher conditioning agent removes light deposits without leaving residue and is a wellness treatment for your appliance. It is also suitable as a preventative care product for your machine.

Even when external deposits are not yet visible, there may be light soil in hidden areas.

Tip: Clean the door seal regularly using a damp cloth and a few droplets of the Miele dishwasher conditioning agent and it will retain its elasticity and suppleness.

Miele dishwasher and washing machine cleaner



Stubborn soiling may appear on heavily used and older dishwashers that is not able to be completely removed by a conditioner. A dishwasher cleaner is recommended in such instances. Due to its highly concentrated ingredients, heavy soiling is easily removed. The oxygen-based bleaching agent contained in the Miele dishwasher cleaner binds with the unwanted deposits and loosens them. The appliance is then protected against premature wear and tear.

Miele care products

Miele care products can be ordered from Miele's online shop (depending on country).



www.miele-shop.com

Care for your reliable helper

To retain the excellent performance of your dishwasher for as long as possible, it requires a certain amount of care every now and again. After all, you get your car serviced and wash it at regular intervals. For cleaning and care details, see the operating instructions.

- Clean the filter combination in the base of the wash cabinet regularly (approx. every 2 months). Over years of usage, food residue can accumulate here. When replacing the filter, please ensure that it is fitted flush into the dishwasher base and the handle engages.

The Miele filter indicator light reminds you at regular intervals to clean the filters.

- Spray arms should also be cleaned from time to time. Particles of food can get stuck in the spray arm jets and bearings if the filter combination has not been fitted properly.
- The wash cabinet of Miele dishwashers is largely self-cleaning, provided that the correct amount of detergent is always used and from time to time a dishwashing programme with a high temperature (e.g. Sensor wash or Intensive 75°C) is selected. In the event of limescale forming or grease deposits settling, despite these precautions, they can be removed using a machine care product or cleaner.

► Care products

- With the "Maintenance programme", stubborn deposits can be thoroughly and conveniently removed.
- Wipe the door seal regularly with a damp cloth to remove food deposits.
- In the event that food or liquid is spilt when loading the dishwasher, the side panels of the dishwasher must be wiped clean. They are not part of the dishwasher cabinet and are therefore not cleaned in this programme.



Types of crockery and their care





Glass, porcelain, plastic, silver, stainless steel, wood, etc. are some of the materials used in almost every household. As versatile as these materials are, so are their demands in terms of cleaning and care.

To clean your crockery perfectly and gently, it is important to observe the information provided by the manufacturer of the items, the detergent manufacturer as well as the recommendations of the appliance manufacturer. Only the interplay between dishwasher, crockery and detergent ensures that you can enjoy your crockery for a long time.

The following pages provide useful information and tips on cleaning your crockery.

Types of crockery and their care

Aluminium, tin, copper and brass:

These materials may discolour or become matt when washed in a dishwasher.

Stainless steel:

Stainless steel is in all ferrous alloys which, compared to iron and ordinary steel, do not corrode. The reason for this is that other metals are added, mainly chrome and nickel. Most stainless steel cutlery and crockery items such as pots, pans and plates are made from 18/10 corrosion-proof stainless steel (18% chrome, 10% nickel and 72% iron). This stainless steel is corrosion-proof and anti-magnetic, and therefore dishwasher-safe.



Under adverse conditions, stainless steel can corrode (rust) sooner or later. However, if you follow the recommendations below, you can prevent corrosion:

- Ensure that stainless steel does not come into contact with chlorides in the form of common table salt in drinking water or in food residue for a long period of time.

- Do not wash any items in the dishwasher on which rust has already formed (e.g. screws on pots and pans, which are not made from corrosion-proof material). Because the wash and rinse water is circulated in the dishwasher, these rust particles may settle on corrosion-proof stainless steel items.
- Brown, bluish or pearlescent shimmering colours on stainless steel occur through the reaction of hydroxide ions with minerals from cooking and roasting certain types of vegetables or fish. These discolorations are completely harmless to humans. They can be easily removed using a damp cloth and a little of Miele's Dishwasher and washing machine cleaner.

- After replenishing the salt reservoir, run the Quick wash 40°C programme.

Recommended dishwashing programmes:
All Miele dishwashing programmes

Additional information: Pots suitable for induction cooktops contain a layer of iron in the base which is coated with stainless steel. The layer of iron gives the base magnetic properties. The stainless steel coating gives the pot dishwasher-proof properties.

Tip: All stainless steel components in Miele dishwashers which come into contact with suds are made from 18/10 rust-proof stainless steel.

Types of crockery and their care

Glassware:

Glass is used in every household because of its excellent properties such as transparency and shine, and because it is neutral in taste and odourless. The basis for the manufacturing of glass is a mixture of sand and various metal oxides such as potassium and magnesium, which are fused in temperatures of between 1500°C and 1800°C.

After frequent washing, changes to the surface of the glass can sometimes be perceived. This is due to tiny deterioration that becomes visible as a milky tarnish or iridescence. Such deterioration cannot be reversed and is therefore irreparable.

Tarnishing can be caused by many different factors. If you apply the following rules, you will enjoy your glassware for a long time:

- When buying new glasses, ensure they are labelled as dishwasher-safe. This type of glassware has been tested by the manufacturer by washing the glass at least 1000 times.
- Set the water hardness for your dishwasher. Your local water authority will be able to provide you with information on the water hardness in your area.
- Even high-quality, delicate glasses can be washed without any risk in your Miele


dishwasher. This has been confirmed by Riedel, manufacturer and originator of fine wine glasses.



Georg Riedel recommends Miele dishwashers for washing his glasses (pipe-blown by hand and machine-blown).

- Ensure that your glasses do not knock against other hard items when using or loading your dishwasher, causing scratches which at first cannot be seen by the naked eye. However, they become visible the more often the glasses are washed.
- Use a detergent with glasscare formula, e.g. from

► **CareCollection**

Recommended dishwashing programmes: ECO, Light soiling 55°C,  Sensor wash gentle, Quick wash 40°C, SolarSave, Glasses warm

Tip: Deposits on glasses can also occur due to limescale in water or detergent residues that are left on the surface of glasses during the drying phase. These deposits can be easily removed using Miele's all purpose microfibre cloth and/or a little of Miele's Dishwasher conditioning agent.



All Miele dishwashers contain Perfect GlassCare. This ensures that the water hardness level is properly adjusted for the care of your glassware.

Types of crockery and their care

Wood:

Cutlery and dishes made out of wood, or with wooden parts, are not suitable for washing in dishwashers because the wood may crack and swell. The glue used in these items is also not dishwasher-proof and may cause the items to fall apart.

Ceramics:

The word “ceramics” comes from the Ancient Greek word “keramos” (“potter’s clay, tile, pottery”). The term was used for clay and for pottery items made from clay which were fired, retaining their shape permanently. The production of clay is one of the oldest cultural techniques (craftsmanship) of humankind. The main properties of ceramics are clay and/or kaolin, feldspar and quartz.

Water is added and items shaped at room temperature, then dried and finally fired. The ceramics are then glazed. Depending on the grain size, they are grouped in coarse ceramics and fine ceramics. Domestic crockery consists mainly of fine ceramics. These are divided into four categories: earthenware (crockery), stoneware, porcelain and Vitreous China (Bone China).

Plastics:

Storage containers, mixing bowls, dishes for children, ... plastic materials are used for a wide range of things as they are much lighter, more flexible and resistant to breakage than porcelain. Please note the following regarding washing plastics in your dishwasher:



- Generally, plastic items can be washed in a dishwasher. Especially so-called thermosetting plastics, which are fully dishwasher-proof and can be washed at temperatures up to 50°C.
- If plastics come into contact with foods such as carrot, beetroot or tomato, they may discolour slightly. Remove natural dyes from crockery before washing in the dishwasher.
- Plastics are lighter than other crockery. They must therefore be properly secured in the dishwasher.
- Plastics have low heat-retention properties and dry more slowly than other materials. The "Extra dry" option with extended drying phase on Miele dishwashers guarantees perfect results. The AutoOpen drying function supports the drying process of plastics by opening the door automatically at the end of the programme.

Types of crockery and their care



Porcelain:

In general, the harder and less porous the material is, the more suitable it is to be washed in a dishwasher. Also of importance in ensuring that items are dishwasher-safe is the type and the application of decoration. Differentiation is made between:

- Underglaze decoration: The decoration lies under the protective coat of glazing and cannot be damaged. The surface of this type of decoration feels even and smooth. This type of decoration is generally suitable for dishwashers.
- In-glaze decoration: In-glaze decorations are applied to already glazed crockery. The decoration sinks into the re-softened

glaze at temperatures between 1150°C–1250°C and is then sealed in by the glaze cooling down. These types of decoration are also generally suitable for dishwashers.

- On-glaze decorations: Porcelain on-glaze decorations are applied directly to the surface of the porcelain and are baked on at comparatively low temperatures of around 800°C. When washing in a dishwasher, care must be taken as the decoration is very sensitive due to the low temperatures at which it is baked on. Most crockery with a gilded rim has an on-glaze decoration.

Recommended dishwashing programmes:
all Miele dishwashing programmes*

* not suitable for on-glaze decorations

Types of crockery and their care

Silver:

Silver cutlery is beloved by gourmets for its striking appearance and excellent thermal conductivity. The temperature of the cutlery adjusts to that of the food and guarantees a taste experience of the highest class. The most common types of silver for cutlery are 800 silver (80% silver and 20% copper) and sterling silver (92.5% silver and 7.5% copper). The addition of copper makes the cutlery harder and more resistant to wear and tear. Silverware is coated with silver plate. A 90 silver coating is predominantly used. The supporting material is normally stainless steel or a composition of copper, zinc and nickel. It is generally not a problem to wash cutlery with a 90 silver coating in the dishwasher. However, the following tips should be taken into consideration:

- Discolouring of silver occurs through sulphur compounds in food residues (e.g. egg yolk, mayonnaise, mustard, onions, pulses, fish, marinades, etc.) or gasses (e.g. air). Keep the contact time with these substances as short as possible.
- High cleaning temperatures can encourage the reaction ability of silver. Therefore, clean silver at low temperatures.
- Ensure that silver and stainless steel items do not come into contact with one another.

Recommended programmes: ECO
Sensor wash gentle, Light
soiling 55°C



The ABC of dishwashing

Nowadays dishwashers relieve us of a great deal of bothersome housework. In order for your dishwasher to achieve the results that you deserve, we would like to give you some tips on how to get the best out of your appliance.

The six steps of dishwashing:

1. Remove coarse food residue before loading the dishwasher. Using kitchen paper towel or a fork for this is sufficient.
2. Do not pre-rinse the items by hand.
3. Load items, as described in the section
 - ▶ Basket design.
4. Load the dishwasher to capacity. This allows you to utilise the savings potential of your dishwasher to the full and you can wash the items considerably more ecologically than when washing dishes by hand.
5. Ensure that the reservoirs for dishwasher salt and rinse aid are always replenished. Your appliance prompts you to do so if this is not the case.
 - ▶ **CareCollection**
6. Select a programme and/or temperature that is suitable for the type of crockery and the degree of soiling.
 - ▶ **The dishwashing programmes**



The ABC of dishwashing

Food residue on dishes ...

Ash

If ashtrays have piled up after a party, care needs to be taken with the cigarette ash: Ash doesn't dissolve in the dishwasher and is dispersed throughout the appliance, including onto other crockery. Therefore, ash should be washed by hand and not in a dishwasher.

Coffee stains

The average person drinks approx. 6.5 kg coffee a year. To prevent brown rings in your cups, use a detergent with an enhanced bleaching effect.

► **CareCollection**

Green cabbage residue

If this typical winter vegetable is stuck to your dishes, try out the following cleaning tips:

► **Spinach residue (p. 64)**

Grease residue

Grease residue occurs in a dishwasher if too little detergent is used over a long period of time. Ensure that the dishwashing programme is always the right one for the degree of soiling on the dishes and always



dispense the required amount of detergent. Detailed information is provided in the section on dishwashing programmes.

To remove grease residue, use the dishwashing programme 'Maintenance programme' in combination with Miele's Dishwasher and washing machine cleaner or conditioning agent.

► **Care products**

Herb residue

Whether it be wild garlic, parsley, mint, thyme or chives: to remove herb residues, slightly increase the detergent dosage.

Lipstick stains

Lipstick stains consist of wax with pigments. Whilst wax melts during the wash process due to the temperature inside the dishwasher, pigments are more difficult to remove. Increase the quantity of detergent

to dissolve the pigments, removing them from glass surfaces.

Coffee stains

The average person drinks approx. 6.5 kg coffee a year. To prevent brown rings in your cups, use a detergent with an enhanced bleaching effect.

► **CareCollection**

Rust stains on dishes

Do not wash any items in the dishwasher which have rust stains. The wash process may transfer rust onto other dishes.

The ABC of dishwashing

Sand

Sand is often used in households for decorative purposes or as a foundation and heat protection in candle light holders. Before you wash these holders in a dishwasher, remove the sand thoroughly. Otherwise the sand may clog up the circulation pump or spray arm bearings.

Salt residue

After replenishing the salt reservoir, start the

- ▶ **Quick wash 40°C** programme to prevent pitting.

Spinach residue

Spinach is not water soluble and therefore will be dispersed throughout the machine by the water. Because spinach sticks to smooth surfaces, it finds its way easily to other items in the dishwasher. Select a programme with an integrated pre-wash or the Sensor wash programme. If needed, increase the amount of detergent used.

Tea stains

Tea stains occur when black tea is brewed with hard water and left to stand. A detergent with an increased bleaching effect will remove any stains so that you can enjoy your afternoon tea without any problems.

- ▶ **CareCollection**

Wax

Traces of wax are often found in candle light holders after candles have been burned down in them. Do not wash items with wax on them as it is insoluble in water and may damage your dishwasher.

Water stains

Water stains may be caused on the one hand by limescale deposits. Check the water hardness that the dishwasher is programmed to and the quantity of salt in the salt reservoir. On the other hand, water stains can form on glass if water doesn't run off properly. In this case increase the rinse aid dosage.



The ABC of dishwashing

Problem solving guide

Detergent clumps together and is not rinsed out properly

When loading the dishwasher, ensure that no large items are placed directly in front of the detergent dispenser so that it can open without obstruction during the programme. Store detergents in a dry place so that they don't clump together. Add detergent to the dispenser shortly before starting the programme. Otherwise the detergent can come into contact with remaining water in the detergent compartment and clump together. If you are using Delay start, wipe dry the detergent compartment beforehand.

The Miele AutoOpen drying feature opens the dishwasher automatically at the end of a programme.

Discoloration of crockery and plastic items

Discoloration often occurs on plastic items. This discolouration is completely harmless and cannot endanger your health. It is caused by natural dyes in foods such as tomato sauce and beetroot. Use a detergent with a sufficient bleaching effect or increase the amount of detergent slightly.

Tip: Most discolouration can be removed using a cloth and vegetable oil.

Drying – crockery does not dry

Small puddles of water on upside down crockery cannot always be prevented. However, drying these by hand is often not necessary if a few simple tricks are applied:

- Increase the amount of rinse aid dispensed
- If you are using combination products and are not satisfied with the drying results, try using an individual detergent and separate rinse aid
- Activate the Extra dry option for perfectly dried loads
- Open the dishwasher door completely at the end of the programme. This allows the warm steam in the dishwasher to escape, thus assisting the drying process. The Miele AutoOpen drying feature opens the dishwasher automatically at the end of a programme.

Dull deposits

Dull deposits on dishes are caused by starch residue. These stem mainly from food residue of potatoes, flour, sauces or pulses. Ensure that dishes are placed correctly in the dishwasher.

- ▶ **Basket design:** Every item must be exposed to dishwashing water. Increasing the detergent quantity slightly may resolve the problem.

Foaming

Excessive foam build-up, apparent in the wash cabinet after a programme has finished, is often the result of using too much rinse aid or detergent. Check the dosage recommendations of the detergent. Wipe off excess residues.

The ABC of dishwashing

Tip: Using a damp cloth and a little Miele dishwasher conditioning agent, you can easily find out if it is a case of a milky film on the glass or a case of glass corrosion. If deposits are easily removed, it is probably limescale deposits or water stains. If cloudiness cannot be removed, the cause is glass corrosion.

Glass corrosion

Glass corrosion is micro-fine deterioration of the glass surface. It is caused by components dissolving away from the glass structure. This results in a modified light diffusion that becomes visible as a milky tarnish or iridescence in different shapes.

Glass corrosion is irreversible, meaning that it cannot be fixed or removed. The only thing to do is to replace your glasses with new ones. For general advice on cleaning and care of your glasses, see

► **Glassware.**

Grainy, coarse or sandy residue

If too much detergent is used, it may settle on crockery. Another reason may be larger quantities of food deposits containing starch. Remove large quantities of foods containing starch before loading into the dishwasher.

Iridescent colours

Various iridescent colours may form on stainless steel pots and pans or in the wash cabinet. Solution for the wash cabinet: Use Miele's Dishwasher conditioning agent or Dishwasher and washing machine cleaner in accordance with instructions.

- **Care products:** For preventing deposits on dishes: remove deposits with a damp cloth and Miele's Dishwasher conditioning agent.

Limescale deposits inside the cabinet

The use of Miele's Dishwasher and washing machine cleaner or Dishwasher conditioning agent will leave your wash cabinet shining like brand new.

As a preventative measure, in case you dose separately: ensure there is sufficient regeneration salt in the appliance and that the water hardness is programmed in correctly.

Milky films on glassware

In most cases, these are caused by limescale deposits. Ensure that the correct water hardness has been programmed into the dishwasher and that sufficient dishwasher salt is in the salt reservoir.

Tip: When purchasing glassware, ensure that it is dishwasher-safe. Due to new production processes, the suitability of glasses for dishwashers has been greatly improved.

The ABC of dishwashing

Odour development in dishwashers which have been used for some time

Odour development can have various causes. Try the following recommendations:

- ▶ **Care for your loyal helper**
- ▶ **Limescale deposits inside the cabinet**
- Deposits in the area around the door seal: Clean the door seal using a damp cloth and, if necessary, a little Miele dishwasher conditioning agent.
- Clean the filter combination
- Crockery is collected in the dishwasher over a period of time until the machine is full. Food residue can start to give off an unpleasant odour. Use the pre-wash programme to remove coarse food residue.

- A faulty installation of the inlet hose or the drain hose can cause unpleasant odours. They should be checked to see if this is the case.

Odour development in new dishwashers

Similar to a new car, new dishwashers have their own odour due to production-related reasons. The occurring odours are in no way a cause for concern, nor do they present a risk to health. They will gradually reduce after several wash cycles.

Tip: Store glasses with the opening facing upwards. This ensures that glasses are aired and odour molecules can escape.

Silverware is tarnished

Observe the tips on the care of silverware. Once silverware is tarnished, only a special cleaner for silver can help.

Sparkling finish

Are your crockery and glasses lacking that sparkling finish after dishwashing?

- Milky films: These may be caused by limescale deposits on glassware. Ensure the water hardness has been correctly programmed and there is sufficient dishwasher salt in the salt reservoir. Another cause may be detergent deposits. Refer to the dispensing recommendation of the detergent manufacturer.
- Irremovable cloudiness:
 - ▶ **Glass corrosion**
 - ▶ **Water stains**

Musty smelling glasses may be a sign of glass corrosion. The surface of the glass becomes more porous with each wash and odour molecules accumulate.

▶ Glass corrosion



The ABC of dishwashing

Streaks on glassware

If the streaks can be removed, they are most probably the result of using too much rinse aid. Reduce the rinse aid dosage in accordance with the operating instructions. If the streaks cannot be removed, they are the result of glass corrosion.



Water remains in the wash cabinet at the end of a programme

If this occurs, first check the filter combination. Then check the drain pump and the non-return valve. For a thorough explanation of how to do this, please refer to the operating instructions.



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