

Manufacture



de Buyer  
D E P U I S 1 8 3 0

Chaque recette a son secret



Everything there is to know  
about **carbon steel**

INFORMATION • ADVICE • TIPS



For 200 years, authenticity, passion and commitment have been the values at the core of de Buyer's business, knowledge and expertise.

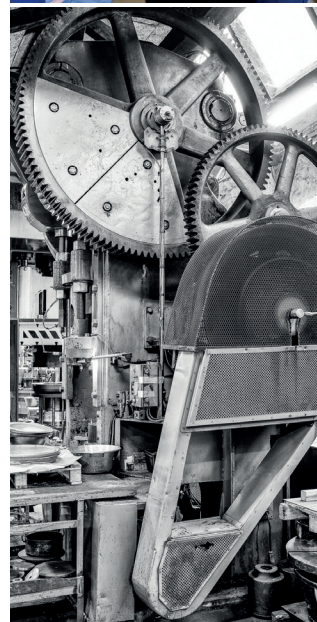
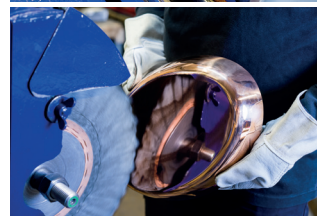
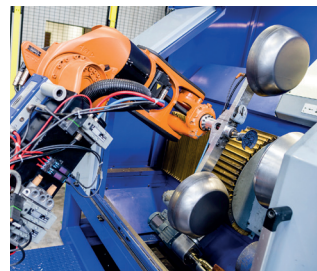
We design and manufacture utensils, continuously innovating to precisely meet the needs of both catering professionals and home cooks.

Like all lovers of good food, we have a passion for tasty and nutritious cuisine. In contrast with today's culture of instant gratification and ready meals, we want to help each individual to achieve fulfilment by taking back control of their diet. We support a concept of cooking that requires time and effort.

Awarded a 'Living Heritage Company' label by the French state, we continue to maintain our artisanal spirit and our passion for precise, high-quality work carried out with care. We campaign for responsible and educated consumption: our products are made to last! We promote environmentally friendly manufacturing processes that protect the beautiful Vosges area. We are the first culinary-sector business in France to receive a 'confirmed level of CRS commitment' label from AFNOR, notably for the care taken to ensure the well-being of our employees.

Dedicated to upholding our values and mastering our trade, our products, actions and individual expertise help breathe additional life and soul into the cooking process. After all:

**'Every recipe holds a secret'**  
**'Chaque recette a son secret'**



**FRANCE SAVOIR-FAIRE**  
**D'EXCELLENCE** ★



Every recipe holds a secret

# Carbon steel by de Buyer

De Buyer has long been designing and manufacturing cooking utensils in a variety of materials, such as copper, stainless steel, non-stick and carbon steel, to get the best cooking results for each recipe.

Carbon steel utensils have always been a part of the French culinary tradition and are a symbol of our grandmothers' cooking.

Unbeatable when it comes to **searing, grilling and browning**,

They are an essential ingredient of the Maillard reaction  
a browning reaction that reduces sugars on the surface,  
seals in flavors and keeps the inside tender and juicy.

A durable material, carbon steel is naturally non-stick: the more you use it, the better it gets.

This is why carbon steel utensils have been passed along  
from generation to generation.









## Spotlight on the material

No non-stick coating  
Lifetime warranty  
Sustainable

Carbon steel pans are made from unprocessed material, with no non-stick coating and no chemicals. Carbon steel is mostly made of **iron** and small amount of carbon, just enough to harden the steel.

In addition to being **sustainable**, it's also **budget-friendly** since the material used is more economical than other metals used to manufacture cooking utensils.

De Buyer uses a particularly **sturdy** steel that **retains its shape**. When the steel pan is thick enough, it is suitable for **induction**. The non-removable handles are securely riveted, and the utensils have a **lifetime warranty**.

The MINERAL B de Buyer line comes with a thin layer of natural beeswax, which prevents oxidation before the first use.

Some of our utensils are made with **blue steel**:

Blue steel is a steel that undergoes non-chemical **heat treatment** on the surface. This process provides temporary protection against oxidation during storage and shipment.

It is normal for the blue color to fade over time, since it is not a coating. These pans can be used and cleaned the same way traditional steel utensils are.





“ The best soups really are made in old pots ! ”

The carbon steel pan is the pan our grandmas used for nearly everything, from searing meat to frying potatoes, crafting deliciously moist omelettes and divinely crispy crêpes, or making that perfect, sunny-side up egg...

Carbon steel pans get even better over time, as their cooking properties increase with each use.

## The Maillard reaction in the kitchen

The Maillard reaction, which occurs between 145 and 164°C (280 to 330°F), leads to the caramelization of the reducing sugars and changes the color of the meat to a dark brown, giving it its distinctive taste and aroma. It produces an **incomparable and complex flavor**.

For this reaction to occur, your pan must be ripping hot before cooking. The food must then be seared and caramelized until crusty: this step is necessary for the meat to retain its juices and remain tender. Moisture is sealed in and meat doesn't dry up.



It seasons itself!





## Why use a carbon steel pan rather than a non-stick pan?

The Maillard reaction cannot occur with a non-stick pan, because the non-stick coating acts like a barrier between the food and the heat source, which prevents high temperatures. Non-stick coating allows food to slide right off, thus preventing it from bonding to the pan while it is being seared, which is necessary to retain cooking juices.

The result is a tough and juiceless steak, pale and soggy potatoes, mushy crepes that become dry when you try to brown them...

Nothing can enhance **taste** better than carbon steel.

## When should I use a non-stick pan rather than a carbon steel pan?

Carbon steel pans can do (nearly) everything. However, if you're trying to cook some delicate food such as fish while preventing browning, if you want to gently heat something up or let a preparation simmer, it is recommended to use a non-stick pan.

## What is seasoning?

Carbon steel pans are made from unprocessed material with no non-stick coating. Before the first use, it is recommended to get the pan ready by heating oil in it. This is called seasoning.

This process helps protect the pan while making it naturally non-sticky.

Over time, the fats and oils naturally present in food will keep the pan seasoned.







*Myth :*

«Seasoning is difficult and demanding»

*Reality :*

Seasoning your pan before the first use is recommended in order to take advantage of its amazing properties right from the start (see p. 10). If you don't feel up to the task, rest assured that after the first use, your pan will season itself. All you have to do is pour in a little oil before cooking.

To speed up the process during those first uses, you may cook high fat foods such as red meat.

Your carbon steel pan will then season itself with each use.

Scratches that may appear when using steel cookware will not damage your pan or alter its properties.

*Myth :* “Carbon steel pans may become rusty”

*Reality :* A carbon steel pan that is properly **cared for and properly seasoned**, meaning one that is **used regularly**, should not become rusty.

However, if you put your pan in the dishwasher or if you never use it and store in a humid place, it may become oxidized.

*Myth :* “Carbon steel pans aren't suitable for induction”

*Reality :* Carbon steel is made of 99% iron. It is a **magnetic** material that works great with induction cooktops. Carbon steel pans are actually a cutting-edge utensil and the most suitable for induction. The only requirement is that it must be **thick enough** (from 2 to 4 mm depending on the diameter). A thinner carbon steel pan won't weigh as much, but it could warp if used on induction.





*Myth :*  
“Carbon steel pans stick”

*Reality:* After the first seasoning with oil, your pan is ready to use. It will become gradually darker and more **resistant to sticking** with each use. Just pour a little bit of oil before using it. You can make light dishes and cook with very little oil..

Keep in mind that in the kitchen, the **key to success and taste is to take your time**. To prevent food from sticking to the pan while cooking, allow food to go through the browning process before flipping it over. Once the Maillard reaction occurs, it's a done deal!

*Myth :*  
“Black carbon steel pans seem dirty”

*Reality:* Your pan should darken. It is a sign that the seasoning process is successful. As with any cookware, your carbon steel pan reaches high temperature when you're cooking, which eliminates any bacteria, since bacteria is killed by heat. Your utensil is perfectly clean and safe to come into contact with food.



Carbon steel is a natural, safe and durable material, that can be scratched without causing any issues and provides professional results. These high-quality pans require a few special considerations. For best results, follow these instructions:

**1.** Before the first use, wash the inside and outside of your utensil with warm, soapy water. Rinse well and dry thoroughly.

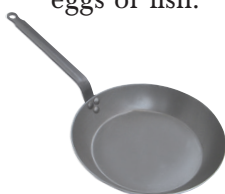
**2.** Get your pan ready: seasoning  
Pour 1 mm of oil with a high smoke point of 180 C on the bottom of the pan and spread evenly. We recommend grapeseed oil, avocado oil, canola oil, peanut oil or sunflower oil. Turn the heat up to  $\frac{3}{4}$  of maximum heat. Heat oil to smoke point. The smoke point is reached quickly. Stay in front of the pan during this step. Turn off heat and allow to cool. Remove oil and wipe pan with paper tissue. Heat pan again for 2 minutes without oil. Your pan is ready to be used.

*There are many more seasoning techniques that are efficient. The main goal here is to use enough fat during those first uses in order to get the steel surface ready to perform as non-stick.*



video seasoning

**3.** Once your carbon steel pan is seasoned, it acquires natural non-stick properties. Therefore, you can cook with very little fat (a small amount of oil or butter) and prepare foods with your carbon steel pan that are more delicate than meat, such as eggs or fish.



Brand new pan  
before seasoning.

Seasoned pan,  
with natural non-stick  
properties.



**4.** Use. Heat some oil in the pan. Once the pan is hot, sear food on each side. Allow food to go through the browning process before flipping it over. Then, turn down heat to finish cooking.

Right after cooking, you can deglaze the pan by pouring in some liquid such as water or cream to dissolve the caramelized bits stuck to the bottom of the pan. You'll get a flavorful mixture that can be used as a sauce.



5. Do not leave food in pan for a prolonged period.

6. Do not use acidic food (tomatoes, white wine, lemon etc.) in your steel cookware.

7. Never, ever, put the pan in the dishwasher.

8. **Care** Right after use, deglaze the warm pan with cold water, then wash with warm water using a sponge. Use a spatula to remove residue after each use. You may use a drop of dish soap. To keep seasoning intact, do not rub with an abrasive sponge and do not use an abrasive detergent. The goal here is only to smooth your pan. After washing, dry the pan thoroughly with a wash cloth. Do not soak in water or air dry on a dish rack.

Occasionally, to deeply clean your pan, heat up some sea salt for 1:30 min on high heat. Sea salt removes any residue and aroma from prior use.

9. **Storage** Store the pan in a dry place. If you do not use it regularly or if the storage place is humid, slightly oil the whole pan to keep it protected. If it becomes rusty despite all these precautions, scrub the pan using a stiff brush or an abrasive sponge.

10. **Induction** Carbon steel is a very reactive material. It's a natural heat conductor with incredible heating properties. For that reason, if you're using a carbon steel pan on induction cooktops, you must:

- use a thick carbon steel pan (see pages 12-13),
- use moderate temperature
- never use the boost feature
- never overheat carbon steel pan while it is empty

# STEEL MINERAL B



The Mineral B line is made from white sheet steel that is 2.5 to 3mm thick and retains its shape, even when used on induction. Lifetime warranty. It comes with a thin layer of beeswax that keeps it protected from oxidation before the first use.

## ZOOM sur la poêle ronde

The Lyonnaise » shape is flared and high, allowing food to slide right off. The curved handle is welded on and can be held comfortably away from heat source.

The Mineral B comes in three lines with different types of **handles**:

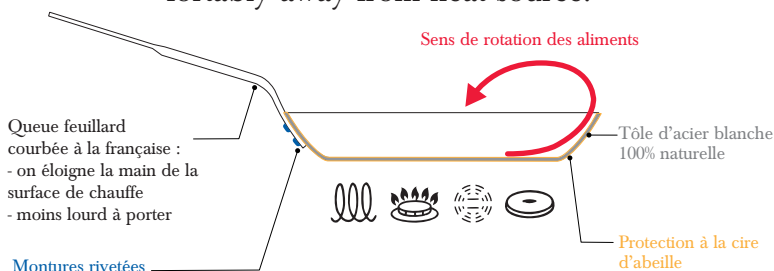
coated steel handle



steel and beechwood handle



cast stainless steel handle





BLUE STEEL **BLUE**  
CARBON



OUR LINES

The BLUE CARBON steel pan is practical and functional. Thanks to its 2-mm thickness, it is both easy to handle and sturdy, and it can be used on all stovetops, including induction at moderate power and it is also oven-safe. The pan and the strip steel handle have undergone a heat treatment to provide them with a natural protection against oxidation.

--- CHOOSE ---	<div><div>MINERAL B · PRO ·</div><div>MINERAL B · BOIS ·</div><div>MINERAL B</div></div>			<div>BLUE CARBON</div>
	MATERIAL	..... WHITE STEELSHEET .....	.....	Blue steel sheet
	THICKNESS	..... 2,5 to 3 mm .....	.....	2 mm
	HANDLE MATERIAL	Cast stainless steel	Steel & wood	Steel
	HANDLE TYPE	riveted	riveted	welded
	INDUCTION	yes	yes	yes, at moderate T°
	OVEN COMPATIBLE	yes	Flash oven*	yes
	LINE PRODUCTS	Pans, sauté-pans	Pans, sauté-pans, woks	Pans, sauté-pans, wok

\*Flash oven = 10 minutes at no more than 200°C (390°F)

## Michel Roth provides tips and advice on cooking a steak

### PREPARATION

Allow 15 to 30 min at room temperature before cooking. The meat will soften while avoiding too much temperature difference with the pan and it will also add moisture for searing.

If too cold, it is more difficult to say when it is cooked.

For a steak cooked rare, leave your meat near to a heat source for 10 minutes before searing, it will be warm inside.

### COOKING

Check your pan is hot enough before starting to cook:  
when you are using fat, the oil should become liquid and the butter foamy.  
It is preferable to start cooking with oil, since butter may brown and become unpalatable.

Once the oil is hot, sear the steak and brown both sides over high heat.

Turn down heat until cooked to your taste.

At the very end, a bit of butter will add flavour to the meat. Rosemary or garlic are also great options.

### BLUE RARE, RARE, MEDIUM... HOW TO MASTER COOKING FOR STEAKS:

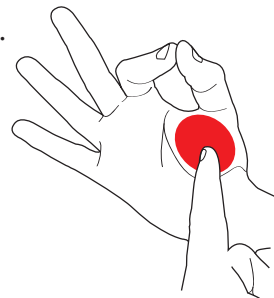
The method taught to chefs to check how well-done a steak is, without a tool, is to use your hand by joining your thumb and any other finger; then with your other hand, press the thenar eminence (the fleshy area between the thumb and the base of the palm).

Touch the thumb and the index finger for the texture of a blue rare steak.

Touch the thumb and the middle finger for the texture of a rare steak.

Touch the thumb and the ring finger for the texture of a medium steak.

Touch the thumb and the little finger for the texture of a well-done steak.





Michel Roth  
MOF Cuisine  
(Best Master Chef of France),  
Bocuse d'Or



## LEAVE THE MEAT TO REST

It is advised for meat to rest after cooking (for cuts of beef, veal or beef ribeyes, double cut ribeye, tomahawks,...) making sure the blood inside is well-distributed, thus making a tender and juicy meat; to help this distribution, it is best to turn the meat once or twice while resting. Before serving, if the meat has cooled, reheat again quickly using a pan or the oven.



## A SAUCE?

Before making a sauce or a jus, you must remove the meat from the pan before deglazing or adding liquid. Meats shall not be cooked in liquids as it will harden. Once you have removed the meat, degrease the pan and deglaze (with water for example), add vegetable or chicken stock, you can also add cream. The meat can then be put back very briefly into the pan to be reheated, once the sauce is done.

## WHEN TO SEASON?

When to add salt is a subject of much debate: we advise adding salt to a piece of beef just before cooking and then adjusting the seasoning at the end of cooking. This will relax the meat, but be careful not to salt it too early because there is a risk it will

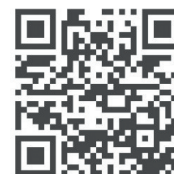
lose its juices.

*Michel Roth's favourite pepper:*

"For a peppercorn steak, I use green peppercorn or roughly cracked Sarawak black peppercorn."

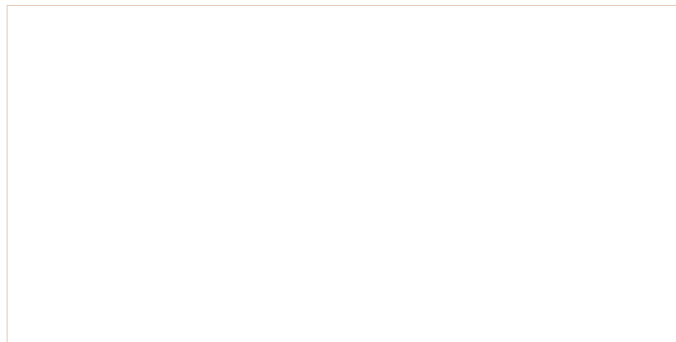


MADE IN  
(  )  
FRANCE



\* Every recipe holds a secret

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