

FEEL THE SPARK

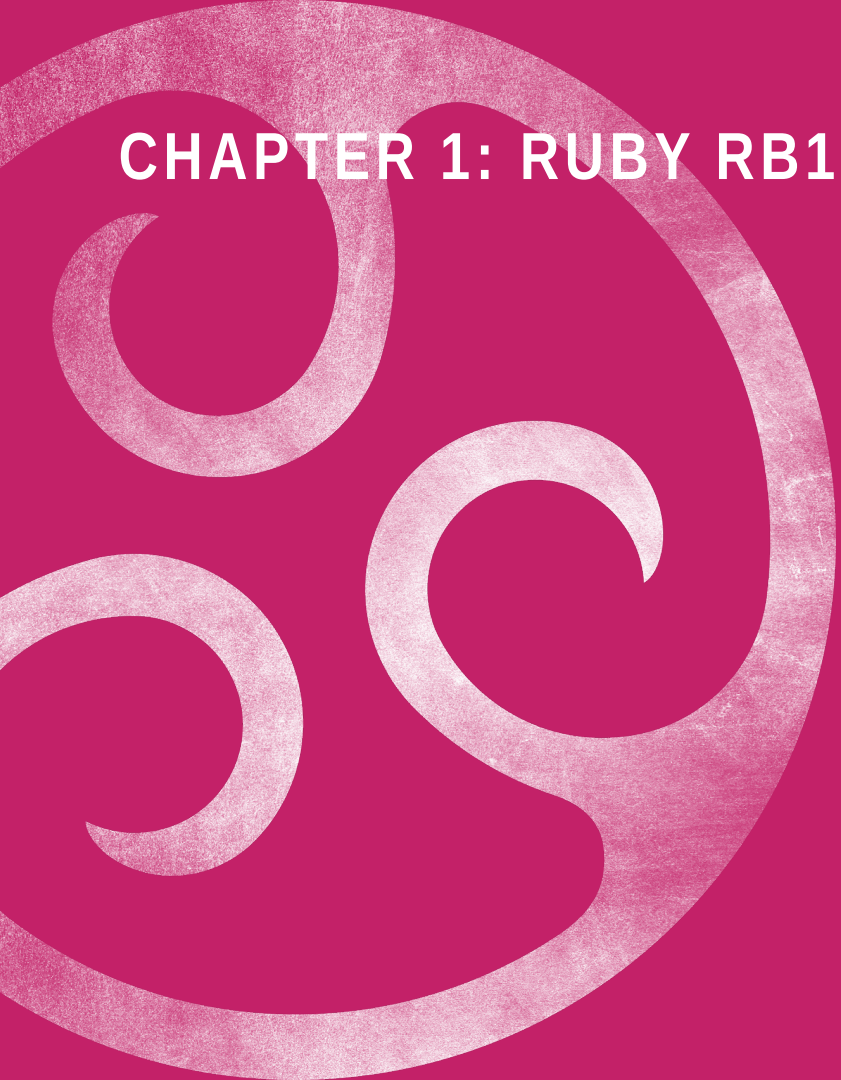


DISCLAIMER: With the objective to protect ruby's authentic proposition, Barry Callebaut continues to work closely with U.S. and Canadian food authorities toward recognizing ruby with its own standard of identity for chocolate. In the meantime, ruby will be launched in the U.S. and Canada as ruby couverture. This will be reflected on packaging. Global communication assets will continue to reference chocolate.

HOW TO CREATE WITH RUBY RB1

AND PRESERVE ITS NATURAL
TASTE & COLOR





CHAPTER 1: RUBY RB1

- **A Story of Discovery**
- **Unlearn Everything You Know About Chocolate**
- **Ruby RB1: A Few Rules of Thumb**



A DISCOVERY

WHICH TOOK OVER A DECADE TO PERFECT

A GIFT FROM NATURE

13 years ago, we discovered **unique precursors, naturally present** in cocoa beans. We would soon uncover that they yield an exceptional taste and color tones.

To unravel the secrets of the ruby cocoa bean and its unique components, we collaborated with the **Jacobs University in Germany**.

Identifying and perfecting the chocolate-making process took years of research. Now, more than a decade later, ruby RB1 has arrived.

RUBY RB1

GETTING STARTED
WITH RUBY RB1

CREATING WITH RUBY RB1

RUBY RB1 ESSENTIAL RECIPES

SELLING YOUR RUBY RB1
CREATIONS



“ With ruby RB1, you have to unlearn what you would traditionally do with dark, milk or white chocolate. It opens you up to trying new pairings, and new ideas. ”

Marijn Coertjens – Pâtissier-Chocolatier – Ghent (Belgium)

“ If consumers can be persuaded by something that is naturally derived from cocoa beans, **ruby may surpass white as a preferred alternative to dark or milk chocolate.** ”

Marcia Mogelonsky – Global Food & Drink Analyst





RUBY RB1

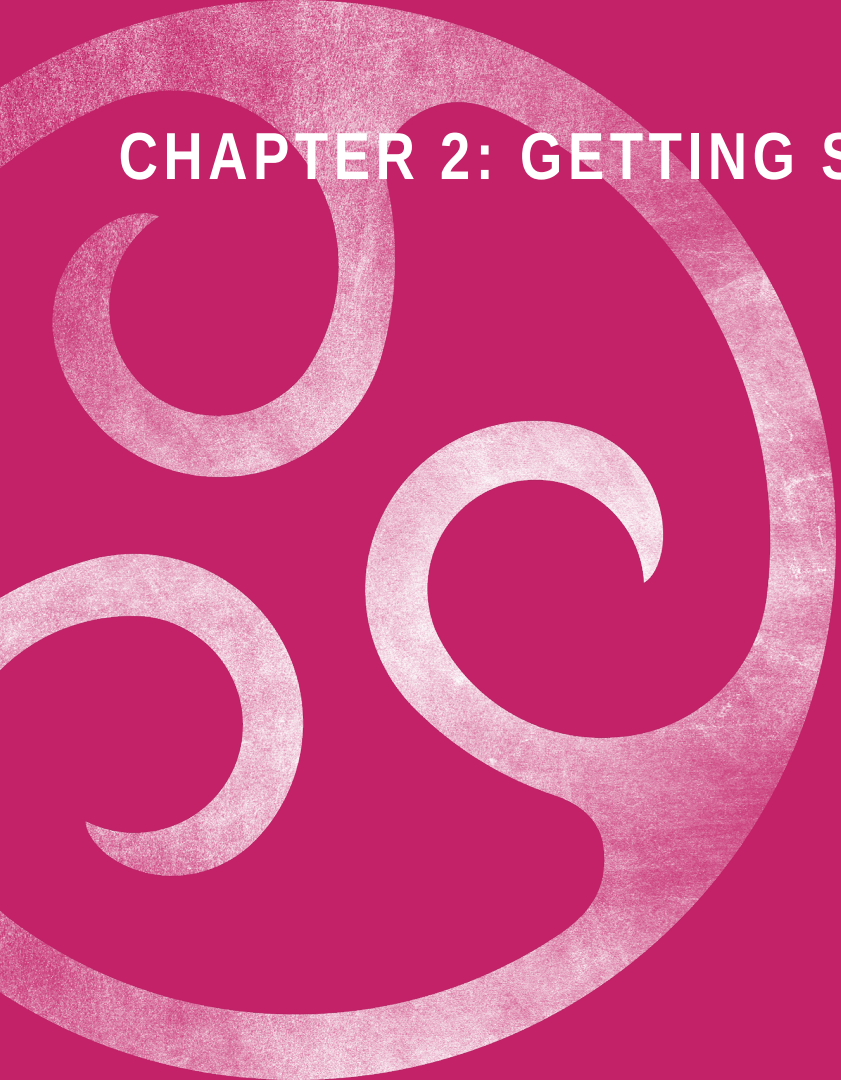
AN AMAZING GIFT OF MOTHER NATURE

The unique taste and color of ruby RB1 are **directly derived from the ruby cocoa bean**. They are both delicate, and preserving them during the creation process requires **a few rules of thumb**.

By using this guide, you will ensure that you keep its characteristic flavor and color, and obtain end results that will **wow your customers time after time**.

Ryan

Ryan Stevenson
Head of Callebaut Chocolate Academy™ Belgium



CHAPTER 2: GETTING STARTED WITH RUBY RB1

- **How to Store**
- **Working Environment**
- **Pairing Possibilities**

1 HOW TO STORE RUBY RB1 CALLETS™

Exposure to light, air, humidity and high temperatures may cause ruby RB1 to change color.

- Store ruby RB1 in a **clean, dry** (relative humidity of max. 70%) and **odorless** environment.
- To maintain color and overall quality, airtight packaging and protection from light is recommended: e.g. always reseal the original packaging after use.
- Storage temperature: **12°C-20°C**

STORAGE



2 HOW TO ORGANIZE YOUR WORKING ENVIRONMENT

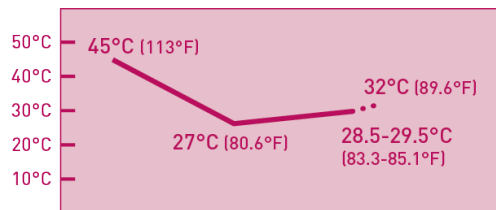
Too hot or humid working conditions may cause ruby RB1 to change color.

- Process ruby RB1 in a **clean, dry** (relative humidity of max. 70%) and **odorless** environment.
- Using ruby RB1 in the wheel and tempering machine for a few days does not affect its taste or color. Ensure continuous movement (stirring) to avoid separation
- When **keeping ruby RB1 in liquid condition**: it is mandatory to maintain processing temperature between **40-50°C**.

PROCESSING



CRYSTALLIZATION CURVE



3 WHICH INGREDIENTS TO PAIR WITH RUBY RB1?

SPICES

Wasabi - Pink Pepper - Ginger
Vanilla - Szechuan - Black
Sesame - Cinnamon
Curcumin - Curry

WINES

Rosé Champagne
Rosé Cava - Red Syrah
Sauternes - Red Rioja

COFFEE & TEA

Green Tea - Arabica
Ethiopia - Black Tea

NUTS & SEEDS

Almond - Cashew
Peanut - Hazelnut
Macadamia - Popcorn

CHOCOLATES

Madagascar - Gold

SYRUPS

Caramel - Honey
Cuberdon - Sirop De Liège
Maple Syrup

FISH

Codfish - Sea Urchin
Clam (Ensis)
Oyster - Crab
Scallops



FRUITS & VEGETABLES

Lemon - Lime - Calamansi
Mango - Yuzu - Carrot
Cauliflower / Tomato

SPIRITS

Saké - Gin - Cognac
Whisky - Rum

HERBS

Mint - Saffron - Violet
Basil - Rosemary

CHEESES

Roquefort - Mascarpone
Stilton - Gorgonzola
Camembert

OILS & VINEGARS

Sesame Oil - Balsamic
Soy Sauce

BEERS

Kriek - Geuze
Rodenbach

AND MANY MORE...

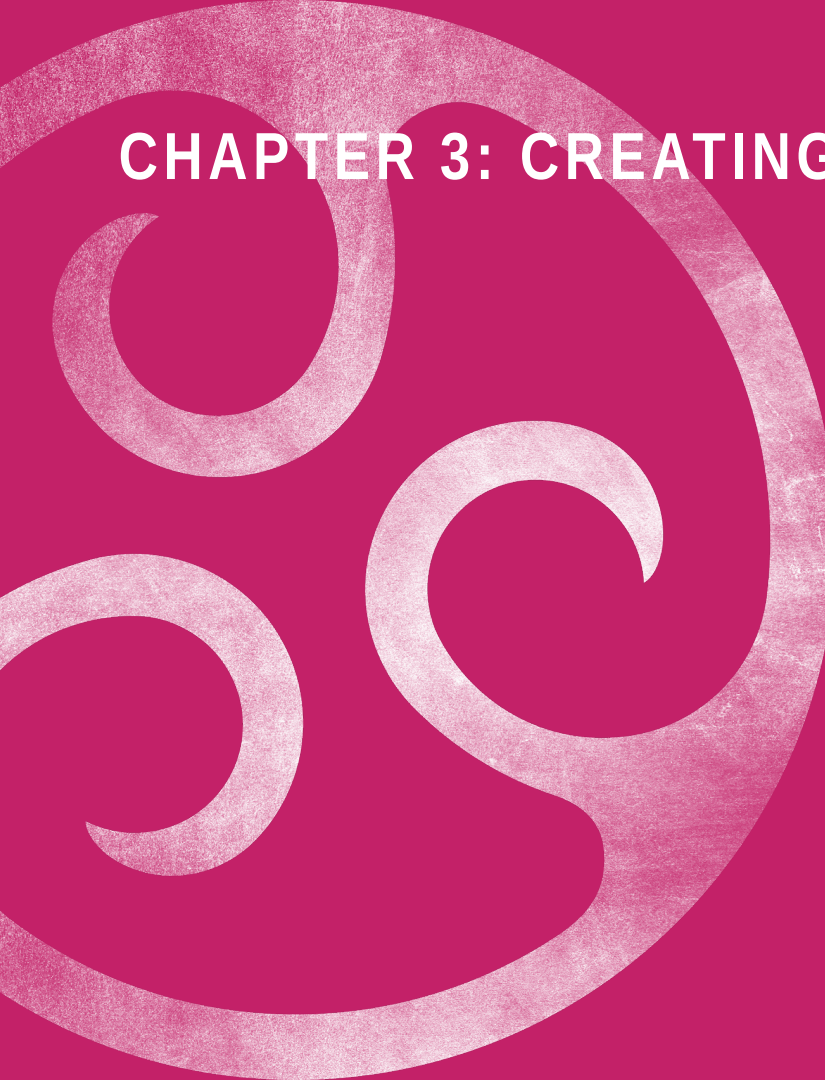
RUBY RB1

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CHAPTER 3: CREATING WITH RUBY RB1

- **Advised applications**
- **Processing ruby RB1 in its pure form**
- **Mixing ruby RB1**
 - ✓ **with fat-based ingredients**
 - ✓ **with water-based ingredients**



RUBY RB1

IN APPLICATIONS

At its best when used as pure as possible ...

Bars & tablets, bonbons, panning, decoration on pastry, dipping, desserts, etc.

... also applicable in more complex recipes. Color dilution is normal when mixing ruby RB1 with other ingredients.

There are a few rules of thumb (packaging, temperature,...) to ensure you keep the characteristic flavor and color of ruby RB1, and obtain end results that will wow your customers time after time.

- Works with fat-based fillings
- A few tips when used in combination with water-based ingredients
- Not bake stable
- One shot:
 - In the filling > suitable if used as a fat-based filling
 - As exterior > not suitable unless you agree on a short shelf life



RUBY RB1

SHELF LIFE INDICATIONS

MOULDING RUBY PRALINES

WATER-BASED FILLINGS (AW = 0.6)

Shelf life expectations

Packaging barrier/ storage temperature	<20°C	>20°C
Low barrier	3M	2M
High barrier	3M	2M

MOULDING TABLETS

with whole hazelnut pieces

Shelf life expectations

Packaging barrier/ storage temperature	<20°C	>20°C
Low barrier	4M	3M
High barrier	4M*	4M

*High barrier packaging preserves color even better than low barrier packaging

FAT/NUT-BASED FILLINGS

Shelf life expectations

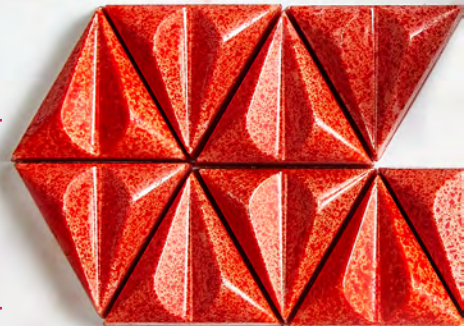
Packaging barrier/ storage temperature	<20°C	>20°C
Low barrier	4M	3M
High barrier	4M*	4M

*High barrier packaging preserves color even better than low barrier packaging

GANACHE WITH RUBY RB1

Lowering the pH of a Ruby ganache and adding alcohol helps maintaining its color.

Aw value below 0.6 is recommended.



RUBY RB1

SHELF LIFE INDICATIONS

ENROBING & PANNING

Enrobing high-moisture products is not recommended.
Glazing agents do not influence shelf life (color) of panned products.

Shelf life expectations (low moisture products aw <0.6)

Packaging barrier/ storage temperature	<20°C	>20°C
Low barrier	3M	2M
High barrier	4M*	4M

*High barrier packaging preserves color even better than low barrier packaging

HOME-MADE DECORATIONS ON DIFFERENT APPLICATIONS

FROZEN / DEFROSTED

Shelf life expectations

- Color is protected when Ruby remains frozen (-18°C)
- Once defrosted, consume within 24h

While defrosting, avoid condensation.

HIGH-MOISTURE PRODUCTS

Shelf life expectations in cold storage (6°C)

	Inclusion	Decoration
Dairy (yogurt)	3h	NA
Whipped cream & mousses	NA	24h

BAPA APPLICATIONS

Shelf life expectations in ambient temperature (25°C)

- On fresh bakery: 3 days
- As a glazing: 3 days
- Mixed in dry products: 3 days

RUBY RB1

DISCLAIMER

Information about shelf life indications presented by Callebaut

- These trials were conducted in a controlled environment with a constant temperature (<20°C) and a relative humidity (50-65% RH).
- There has been no impact of transportation.
- The values mentioned are shelf life indications and are not fixed.
- Barry Callebaut recommends its customers to perform a shelf life test with the proper packaging in the correct storage conditions.

DEFINITIONS

- High moisture: aw value >0.6
- Low moisture: aw value <0.6
- Glossing agents: Shellac, arabic gum and acacia gum do not form extra barrier against moisture

Packaging	OTR [23°C, 50% HR, 100% O ₂]	WVTR [23°C, 50% HR]
High Barrier	<0.5	<0.1
Low Barrier	Non-sealed pack, open to daylight	

(OTR) Oxygen Transmission rate. (WVTR) Water Vapor Transmission rate.

1 PROCESSING RUBY RB1 IN ITS PURE FORM

(Bars, tablets and hollow figures)

We recommend using ruby RB1 as a pure as you can. This will allow your customers to fully explore and enjoy the taste and color of the 4th type in the purest possible way.

CONFECTIONERY



Bars & tablets: Non-filled / add textures of dry ingredients like crunches, dried fruits, nuts, biscuit kernels ...



Moulding & enrobing: combined with a fat-based filling



Panning with dried centers: crunches, dried fruits, nuts, biscuit kernels

PASTRY/DESSERT



Decorations in pure ruby RB1 or mixed with dry inclusions

BAKERY



Dipping & enrobing bakery products, cookies, viennoiserie, ...

Not bake stable

2 MIXING RUBY RB1 WITH FAT-BASED INGREDIENTS

(To create butter creams, etc.)

For confectionery fillings and pastry creams, we recommend mixing ruby RB1 with fat-based ingredients, like butter.

CONFECTIONERY



For filling moulded
pralines

PASTRY/DESSERT



For pastry interiors &
creams

BAKERY



For filling viennoiserie
or frosting cakes



3 MIXING RUBY RB1 WITH WATER-BASED INGREDIENTS

(To create ganaches, mousses, sauces, etc.)

In numerous pastry and dessert applications – such as chocolate creams, crèmeux, glazes, etc. – chocolate is mixed with liquids to obtain a perfect taste and texture.

Chef's advice on color:

When mixing ruby RB1 with liquid ingredients such as cream or milk, you may experience its color to fade. This is normal: diluting ruby RB1 causes color to change. The wide pairing scope of ruby RB1, which you can apply to your liking, allows you to meticulously tune your color to the characteristic ruby color or to play around with it.

HOW TO COUNTER?

- ▶ **Pair with naturally acidic ingredients**
like fruit purees, lime juice, etc.

AND/OR

- ▶ **Pair with naturally colored ingredients**
like dried flower petals (rose, hibiscus),
dried beetroot, raspberries, etc.

PAIRING INGREDIENTS = THE SOLUTION

**You will create interesting pairings
and bring out great flavor
experiences with ruby RB1.**



4 RUBY CREATIONS ON SHELF



To maximize shelf life, always keep the final product:

- in an air-conditioned environment: max **20°C**
- away from sunlight

Inform your customers about **storage recommendations** and **communicate them on-pack**: To preserve the natural flavor and appearance of ruby, we recommend storage below 20°C.

We recommend to always run a **shelf life test** of the final product prior to commercialisation

QUESTIONS?

As Callebaut chefs, we're here to help with technical advice.
Contact us directly or through a Chocolate Academy Center™ near you.



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RUBY RB1

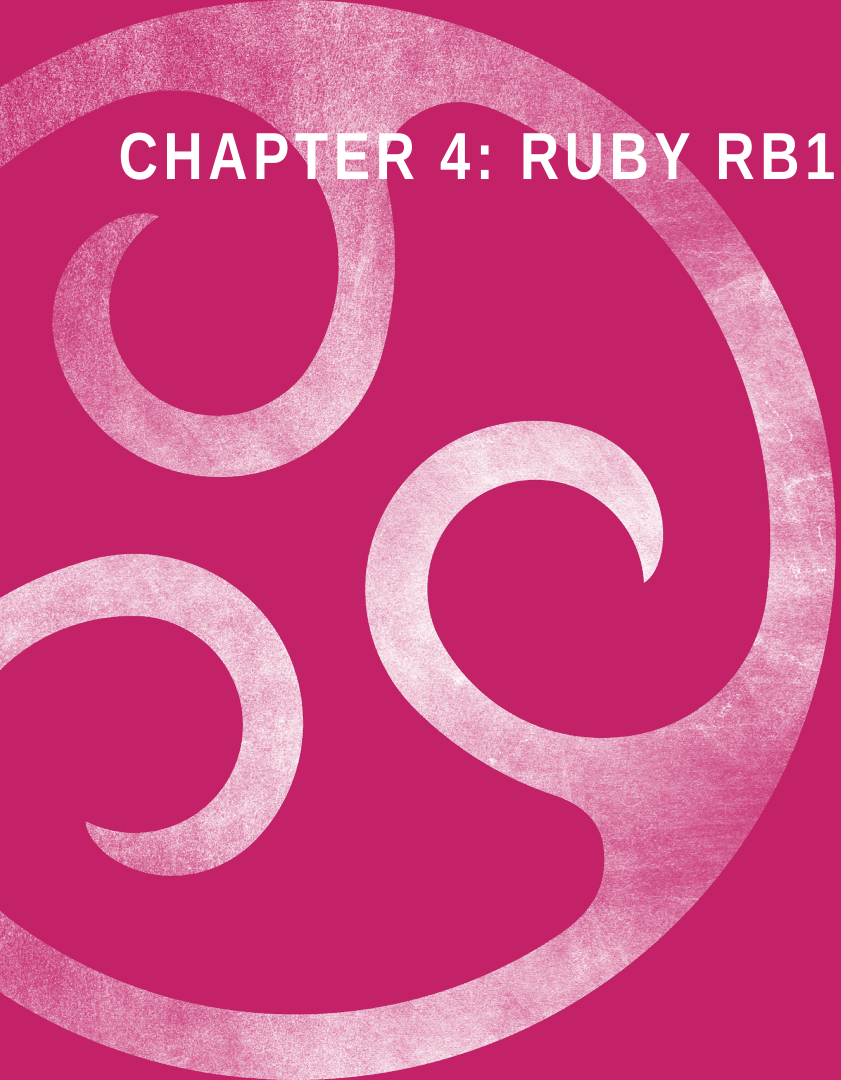
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CHAPTER 4: RUBY RB1 ESSENTIAL RECIPES

BUTTER CREAM WITH RUBY RB1

yield: 1200 g

Ingredients

375 g butter PF28
450 g cocoa butter
375 g **Callebaut® Ruby RB1**

Preparation

Bring all ingredients together in one recipient and heat to 30°C.
Mix homogenously.

Pipe immediately into moulded chocolate shells or keep in the fridge until further use.

Optionally: whip the butter cream until well aerated.

Bring into a piping bag and pipe into chocolate shells or onto chocolate bases before enrobing.



GANACHE FOR MOULDED PRALINES WITH RUBY RB1

yield: 1200 g of ganache

Ingredients

273 g cream (35% fat)
4 g beetroot powder
81 g sorbitol
55 g dextrose
54 g glucose 60DE
61 dry butter PF28

Preparation

Warm to 40°C.

672 g **Callebaut® Ruby RB1**

Melt to 35°C. Add and emulsify with the hand mixer.

Bring into a piping bag.

Pipe into moulded chocolate shells and leave to set before sealing.

Tips

- Ideally mould the praline shells twice with ruby RB1, or even preferred the inside layer with white chocolate, to create a sufficiently thick shell.
- Option: Use beetroot powder as a coloring agent. It's powerful and doesn't influence the taste of your recipe. Mona Lisa Power Flowers are also a good alternative.
- This only serves as one example of a ganache.
- There are many other ways to also obtain great results!



GANACHE FOR HAND-DIPPED PRALINES WITH RUBY RB1

yield: 1200 g of ganache

Ingredients

185 g milk
93 g cream
5 g beetroot powder
57 g dextrose
44 g sorbitol
37 g glucose 60DE
205 g cocoa butter

574 g **Callebaut® Ruby RB1**

Preparation

Bring all ingredients together in one recipient and heat to 40°C.

Melt to 35°C and emulsify with the hand mixer.

Pour into a frame, seal and leave to set overnight.

Provide with a thin layer of tempered ruby RB1 (to prevent the filling from deforming on the dipping fork during dipping).

Cut into the desired shape and enrobe or hand dip in ruby RB1.



PRALINE FILLING FOR MOULDED BONBONS WITH RUBY RB1

yield: 1200 g of praline filling

Ingredients

316 g **Callebaut® Ruby RB1**

502 g almond & hazelnut praliné paste
316 g sesame paste (tahini)
66 g liquid butter PF28

Preparation

Melt.

Pour over melted ruby RB1.
Temper to 23°C.
Pipe into moulds.



PRALINE FILLING FOR HAND-DIPPED BONBONS WITH RUBY RB1

yield: 1200 g of praline filling

Ingredients

215 g milk
33 g glucose 60DE
33 g sorbitol
63 g trimoline
3 g lecithicin
164 g sesame paste (tahini)

Preparation

Melt.

565 g **Callebaut® Ruby RB1**
124 g cocoa butter

Melt. Add and emulsify.

Spread out evenly in a frame. Leave to crystallize overnight before further processing.



CHOCOLATE MOUSSE WITH RUBY RB1 (FOR ENTREMETS)

yield: 1200 g of mousse

Ingredients

362 g raspberry purée
90 g calamansi purée

90 g **Callebaut® Ruby RB1**
72 g gelatine mass

63 g egg whites
31 g dextrose
38 g glucose powder

452 g whipped cream (35% fat)

Preparation

Warm to 40°C.

Mix and melt to 35°C.
Add to the purees and mix well.

Whip together.
Warm slightly to create a Swiss meringue.
Fold into the purée-mixture.

Add and use immediately.



CREMEUX WITH RUBY RB1

yield: 1200 g of crèmeux for desserts and patisserie

Ingredients

163 g cream 35% MG
244 g raspberry purée
16 g lime purée
20 g glucose 40DE

130 g egg yolks (pre-mixed)
61 sugar

488 g **Callebaut® Ruby RB1**
16 g butter 82% MG
61 g gelatine mass

Pour into piping bags and cool before applying or serving.

Preparation

Boil together.

Mix and then add to the cream mixture.
Cook like an anglaise to 82°C.

Mix into the anglaise until homogenous



GANACHE MONTEE WITH RUBY RB1

yield: 1200 g of ganache

Ingredients

29 g lime purée
146 g raspberry purée
15 g glucose DE40

204 g **Callebaut® Ruby RB1**
35 g gelatine mass

772 g cream (35% fat)

Whip before use, bring into a piping bag and apply.

Preparation

Warm to 40°C.

Melt to 35°C.
Add and mix well.

Add, mix again and leave to crystallize for 24 hrs.



GLAZE WITH RUBY RB1

yield: 1200 g of glaze

Ingredients

39 g water
233 g glucose
233 g sugar

233 g raspberry puree
110 g gelatine mass
2 g Mona Lisa Power Flowers™ Red NON-AZO
233 g **Callebaut® Ruby RB1**
117 g mirror glaze

Preparation

Boil to 104°C.

Mix together and add to the previous mixture and mix well.

Pour in a bowl or recipient, seal and keep in the fridge until further use.
Before use: heat to 35°C.



SOFT GLAZE FOR BAKED CAKES AND VIENNOISERIE WITH RUBY RB1

yield: 800 g of glaze

Ingredients

1071 g **Callebaut® Ruby RB1**

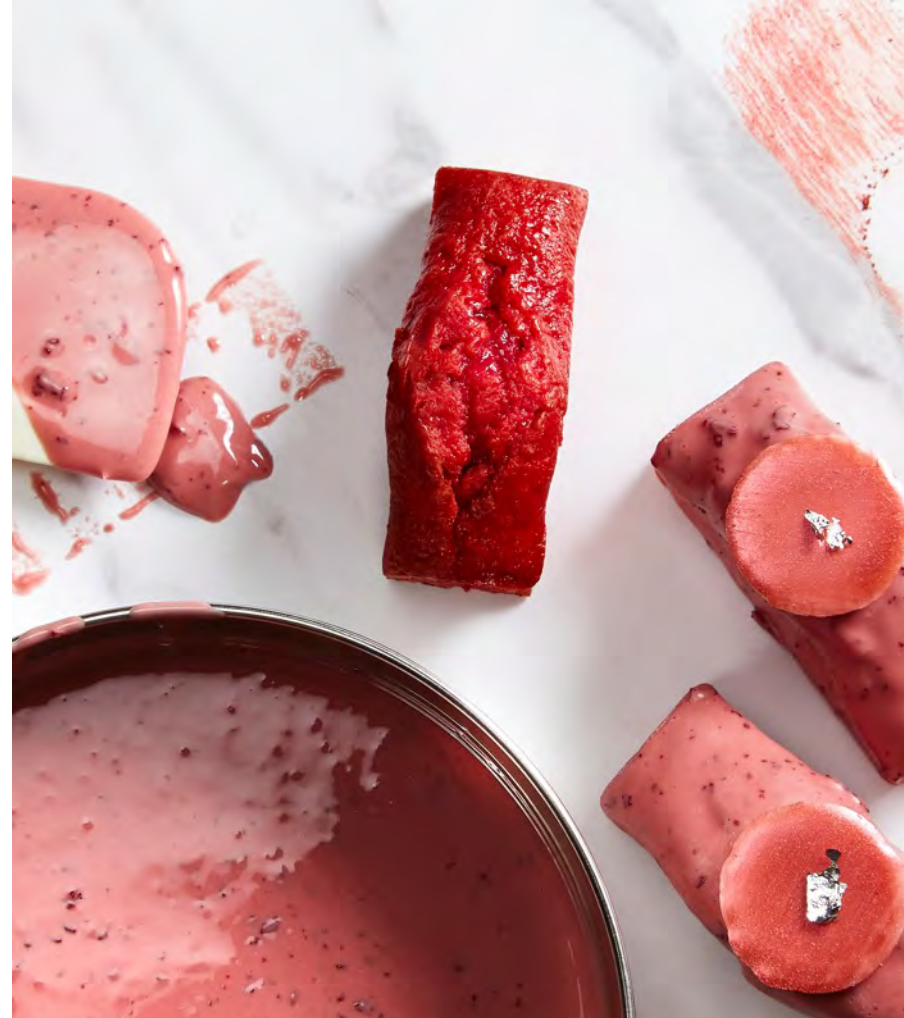
80 g grape seed oil
27 g dry butter PF28
11 g XS raspberry pieces
11 g raspberry flakes

Preparation

Melt.

Add to the ruby RB1, mix well.

Pour in a bowl or recipient and keep in the fridge until further use.
Before use: heat to $\pm 35^{\circ}\text{C}$.



CHOCOLATE SPREAD WITH RUBY RB1

yield: 1200 g of spread

Ingredients

2 vanilla beans
335 g cream (35% fat)
75 g trimoline
5 g beetroot powder

84 g liquid butter PF17
712 g **Callebaut® Ruby RB1**

Preparation

Boil together.

Mix together and melt at 30°C.



CHOCOLATE MOUSSE WITH RUBY RB1 (FOR DESSERTS)

yield: 1200 g of mousse

Ingredients

362 g raspberry purée
90 g calamansi purée

90 g **Callebaut® Ruby RB1**
72 g gelatine mass

63 g egg whites
31 g dextrose
38 g glucose powder

452 g whipped cream (35% fat)

Preparation

Warm to 40°C.

Mix and melt to 35°C.
Add to the purees and mix well.

Whip together.
Warm slightly to create a Swiss meringue.
Fold into the puree-mixture.

Add and use immediately.



ICE CREAM BASE WITH RUBY RB1

yield: 1200 g of ice cream

Ingredients

299 g milk
299 g water
45 g yogurt

60 g dextrose
12 g dried glucose 40DE
6 g stabilizer

359 g **Callebaut® Ruby RB1**

120 g raspberry puree

Preparation

Warm to 40°C.

Add and pasteurize.

Mix in well. Let cool.

Add cold.
Mix again and churn.



SAUCE WITH RUBY RB1

yield: 400 g of sauce

Ingredients

137 g milk
512 g cream 35% MG
5 g beetroot powder

546 g **Callebaut® Ruby RB1**

Preparation

Bring to the boil together.

Pour the above mixture over the ruby RB1 and emulsify with the hand mixer.

Pour in a bowl or recipient, seal and keep in the fridge until further use.
Before use: heat to $\pm 45^{\circ}\text{C}$.



CHOCOLATE DRINK WITH RUBY RB1

yield: 2 servings

Ingredients

332 g milk
4 g beetroot powder

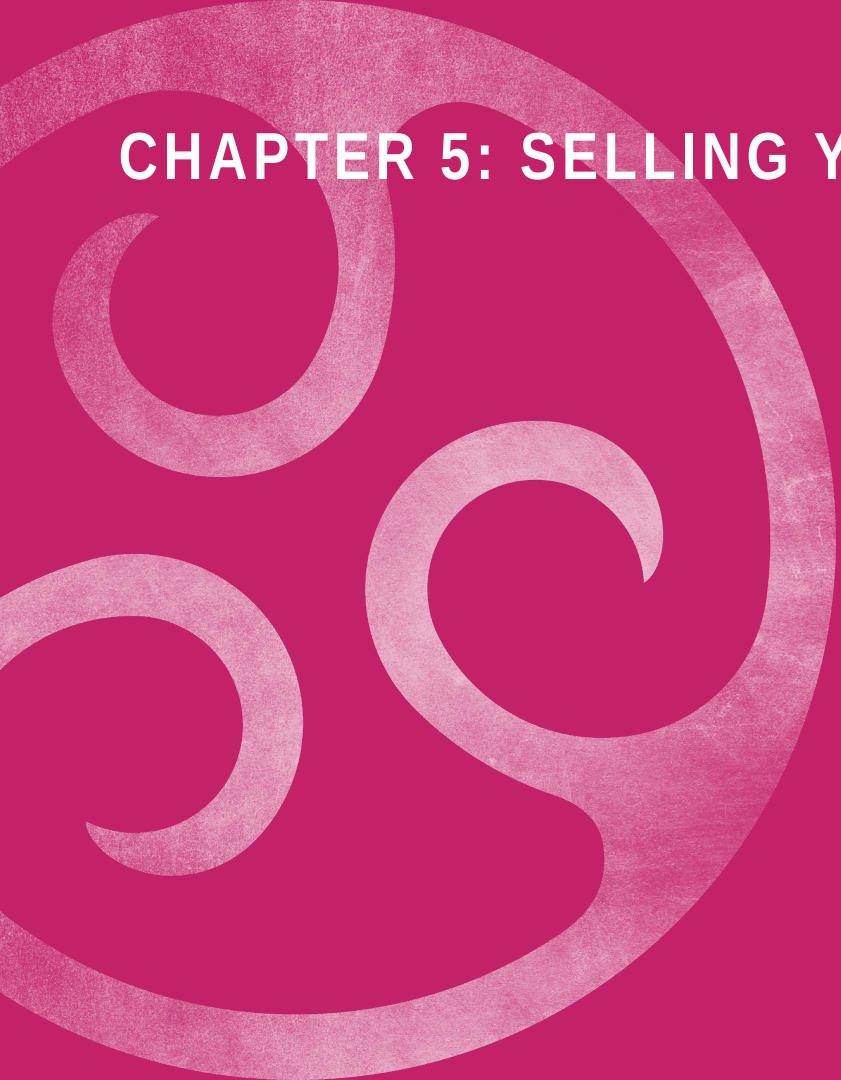
65 g **Callebaut® Ruby RB1**

Preparation

Boil together.

Pour over previous mixture.
Mix well.
Serve hot or chilled (with ice).





CHAPTER 5: SELLING YOUR RUBY RB1 CREATIONS

HOW TO TALK ABOUT RUBY RB1 IN YOUR SHOP OR RESTAURANT

- Callebaut ruby RB1 is the 4th category after dark, milk and white.
- It's a unique, bespoke recipe developed for artisans and chefs and different from any existing ruby expressions.
- Both the taste & color are naturally present in the ruby cocoa bean.
- No colorants or fruit flavorings added.
- It's a result of meticulous selection and expert crafting of ruby cocoa beans.

FREQUENTLY ASKED:

"Can I use the name ruby for my creations or on-pack?"

Yes you can. We recommend to use ruby as a generic and name – not as a logo or as an own-able trademark. Also mentions like 'made from ruby cocoa beans' are possible.

"How do I best describe the taste of ruby on a menu card?"

Ruby brings intense fruitiness with fresh, sour notes.

"Can you provide me with a logo or stamp to put on my packaging?"

Sure - all our customers can use the logo depicted here, but you are also free to design a similar visual/logo yourself.

Send us a message on Facebook when you are ready to request your ruby quality logo.

To strengthen your communication
we recommend to always
refer to the ruby cocoa beans



HOW TO TALK ABOUT RUBY RB1 IN YOUR SHOP OR RESTAURANT

- Make sure to use the key word RUBY and the ruby **Pantone color 215C** to create recognition and standout in all your communication expressions.
- Use call to actions or phrases, such as:

TASTE RUBY HERE

TRY OUR RUBY DESSERTS

MADE WITH RUBY

FROM THE RUBY COCOA BEAN

ETC.



HOW TO PRESENT RUBY RB1 IN YOUR COUNTER

- You will create a better standout for ruby product presentations when you bring it contrast with other chocolates: dark, milk and white are color references everyone knows.
- By placing ruby in between dark, milk and white products, you enhance this new category recognition.



EAGER TO DISCOVER MORE?

GO TO

[CALLEBAUT.COM/CREATEWITHRUBY](https://callebaut.com/createwithruby)



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