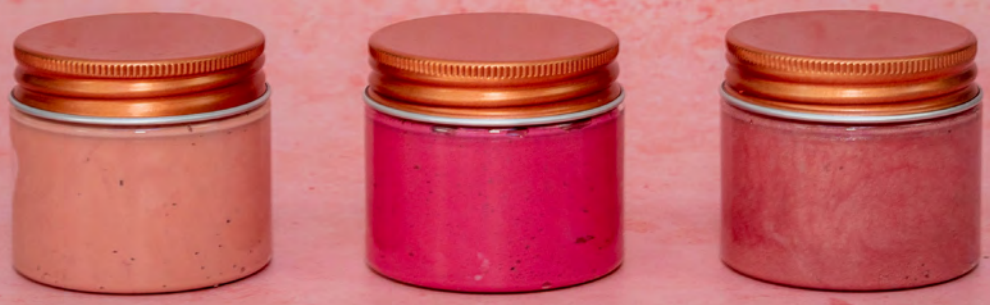
SCHOOL of NATURAL SKINCARE International

4.4 FORMULATING MOUSSE BLUSH, BRONZER AND HIGHLIGHTER



4.4 FORMULATING MOUSSE BLUSH, BRONZER AND HIGHLIGHTER

In this lesson, we will cover:

1. **How to formulate mousse blush, bronzer and highlighter.**
2. **Formulation template for mousse blush, bronzer and highlighter.**
3. **Formulation example for mousse blush.**
4. **Adjusting the formula.**
5. **PET results.**

HOW TO FORMULATE MOUSSE BLUSH, BRONZER AND HIGHLIGHTER

Mousse color cosmetics are usually high viscosity emulsions that are whipped to incorporate air bubbles into the product giving it a fluffy mouse structure. Sometimes, mouse products can also be anhydrous whipped balms, similar to whipped body butters. In both cases, the product needs to be cooled down enough so that its viscosity increases, then it is whipped with an electric mixer with a whisk attachment. The whisking can take a couple of minutes; when the volume has noticeably increased, enough air has been incorporated into the product.

Mousse color cosmetics are usually high viscosity emulsions that are whipped to incorporate air bubbles.

To formulate a mousse blush, bronzer or highlighter an oil phase, water phase and an emulsifier are required. The oil phase is usually small to ensure the product is not too greasy, and it consists of light oils and/or esters, and lipid thickeners, eg waxes or fatty alcohols. The water phase can contain humectants to make the product hydrating, as well as thickeners. Special emulsifiers are not required; the usual O/W emulsifiers commonly used in skincare creams and lotions can be used.

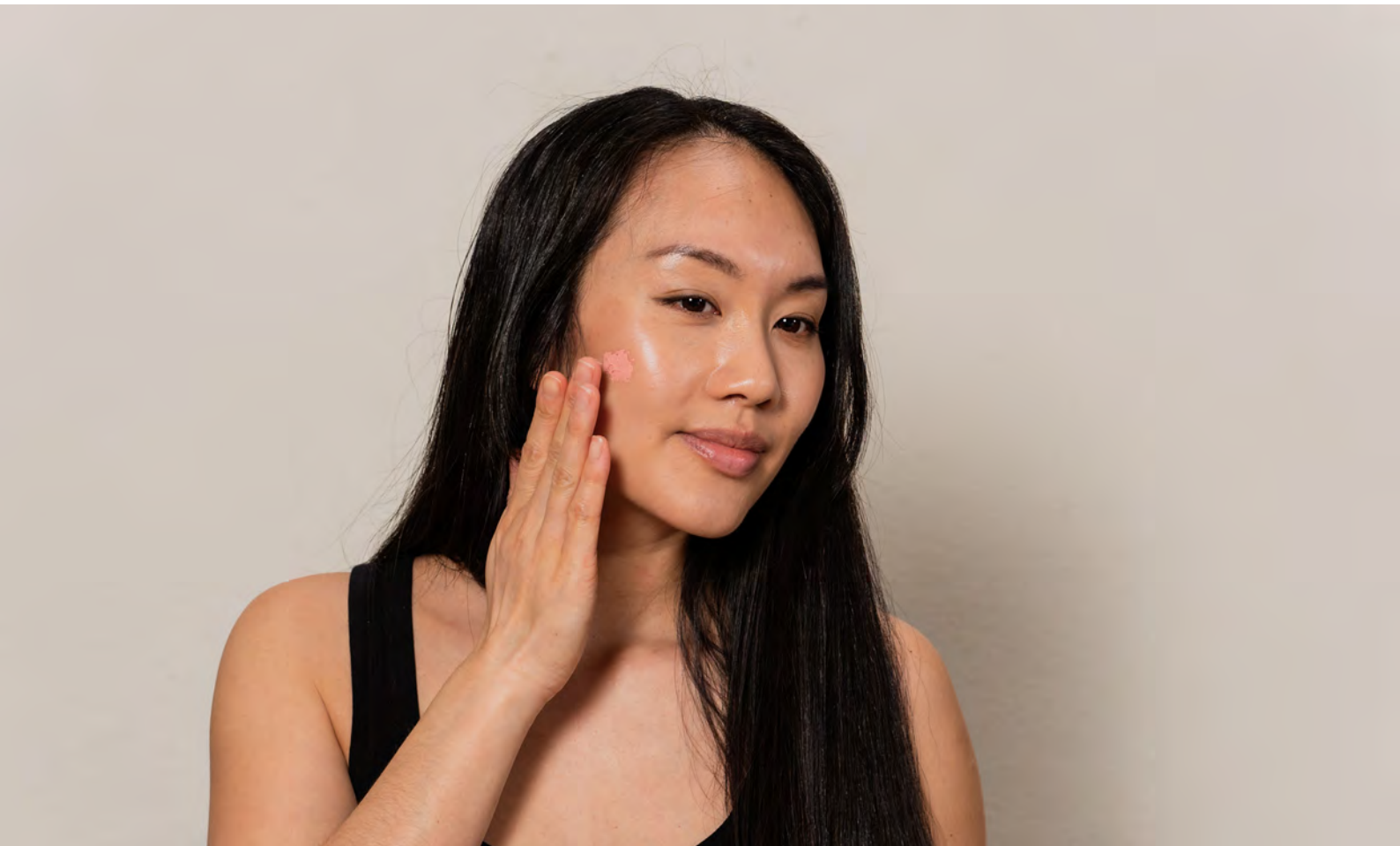
Mousse products are light, hydrating and not as nourishing as anhydrous products, like balms. For this reason they are usually intended for oily skin, however they are suitable for all skin types.

Depending on the product – blusher, bronzer or highlighter – different pigments can be used. Blushers and bronzers can be matte, using just matte mineral pigments, or they can have a shimmery finish by including micas into the formula. Highlighters contain light-colored, very shimmery micas to give an illuminating effect on the skin. Matte pigments usually require lower usage percentages as they are very strongly pigmented. Colored micas, however, are usually used at higher percentages since they are less pigmented. It is a good idea to experiment with the amount of pigment so you can find out what is the optimal amount for the pigmentation you desire.

Our example formula is packaged into a small jar. Any kind of small jar is suitable as packaging for this product type.

Since mousse is an emulsion and contains water, it needs to be properly preserved with a broad-spectrum preservative system.

Mousse blushers, bronzers and highlighters are normally applied with the fingertips and then blended on the skin with fingers or brushes. Due to their fluffy structure, they are easy to apply and tend to feel very light on the skin.

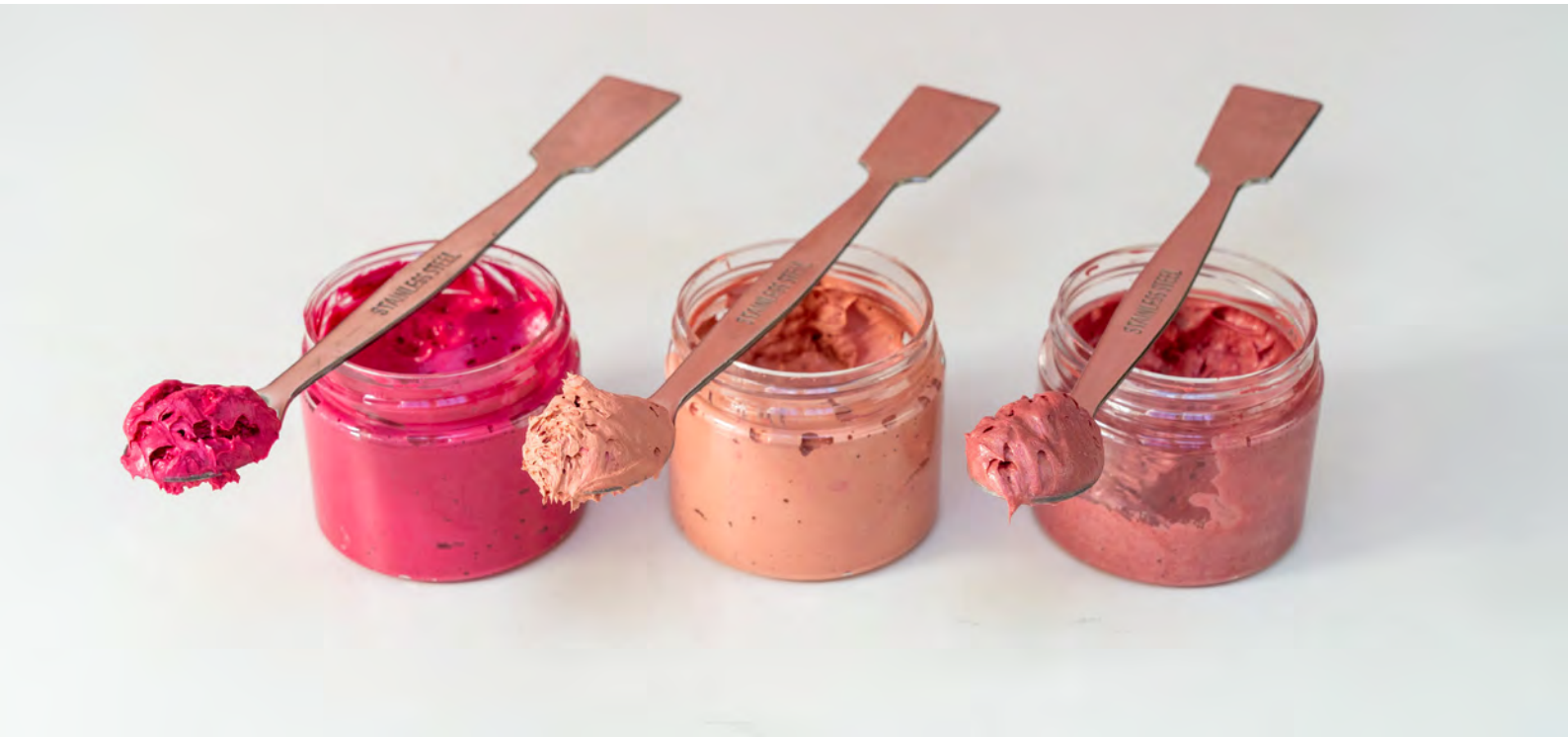


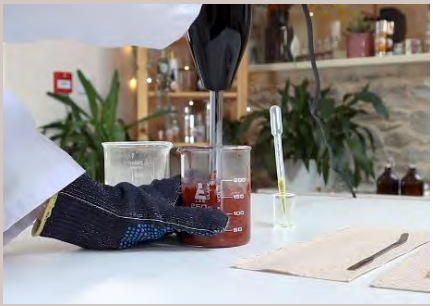
FORMULATION TEMPLATE FOR MOUSSE BLUSH, BRONZER AND HIGHLIGHTER

Let us have a look at a formulation for mousse blusher, bronzer and highlighter.
We will start with the formulation template.

Ingredient type	Function	w/w%
Purified water (deionized) (or hydrosol, aloe vera juice, etc)	Solvent	30-60
Water thickeners (eg gums)	Increases viscosity	0.5-3.0
Emulsifier	Combines oils and water	3-10
Emollients (eg oil, butters, esters)	Solvent	0-20
Lipid thickeners (eg waxes)	Increases viscosity	1-20
Pigment mixture	Provides tint	5-15
Fragrance/essential oils (optional)	Masking agent for raw materials	Up to 0.5
Antioxidant (eg Vitamin E)	Prevents oxidation	0.05-0.10
Preservative	Prevents spoilage via microbial growth	q.s.*

*The abbreviation q.s. stands for 'quantum satis' or 'quantum sufficit', meaning an amount which is enough, or an amount which suffices. This is a term used in template formulas because the amount of preservative depends on the preservative itself and the formula.





FORMULATION EXAMPLE FOR MOUSSE BLUSH

PRODUCT DEVELOPMENT QUESTIONS

Product type:
Mousse blusher.

Are you formulating to meet a particular standard or certification?
We are using natural ingredients, accepted by COSMOS.

Who is your target audience?
People of all ages, looking for a natural blusher.

What is the purpose/function of your product?
To provide a natural looking flush to the cheeks, giving a fresh, bright and healthy appearance.

What properties and qualities do you want your product to have?
Fluffy, airy texture with high pigmentation.

What packaging will your product go in?
Cosmetic jar.

Which solvents are you using and why?
Purified water (deionized), as it is easily accessible and easy to use.

Which water thickeners are you using and why?
Xanthan gum – a natural water-phase thickener to increase the viscosity of the emulsion.

Which emollients are you using and why?
We used jojoba oil and coco-caprylate as they are light emollients not prone to oxidation.

Which lipid thickeners are you using and why?
We are using cetyl alcohol because it thickens without creating a heavy or waxy skin feel.

Which emulsifiers are you using and why?
We are using xyliance, as it is a reliable natural emulsifier that also increases the viscosity of the product.

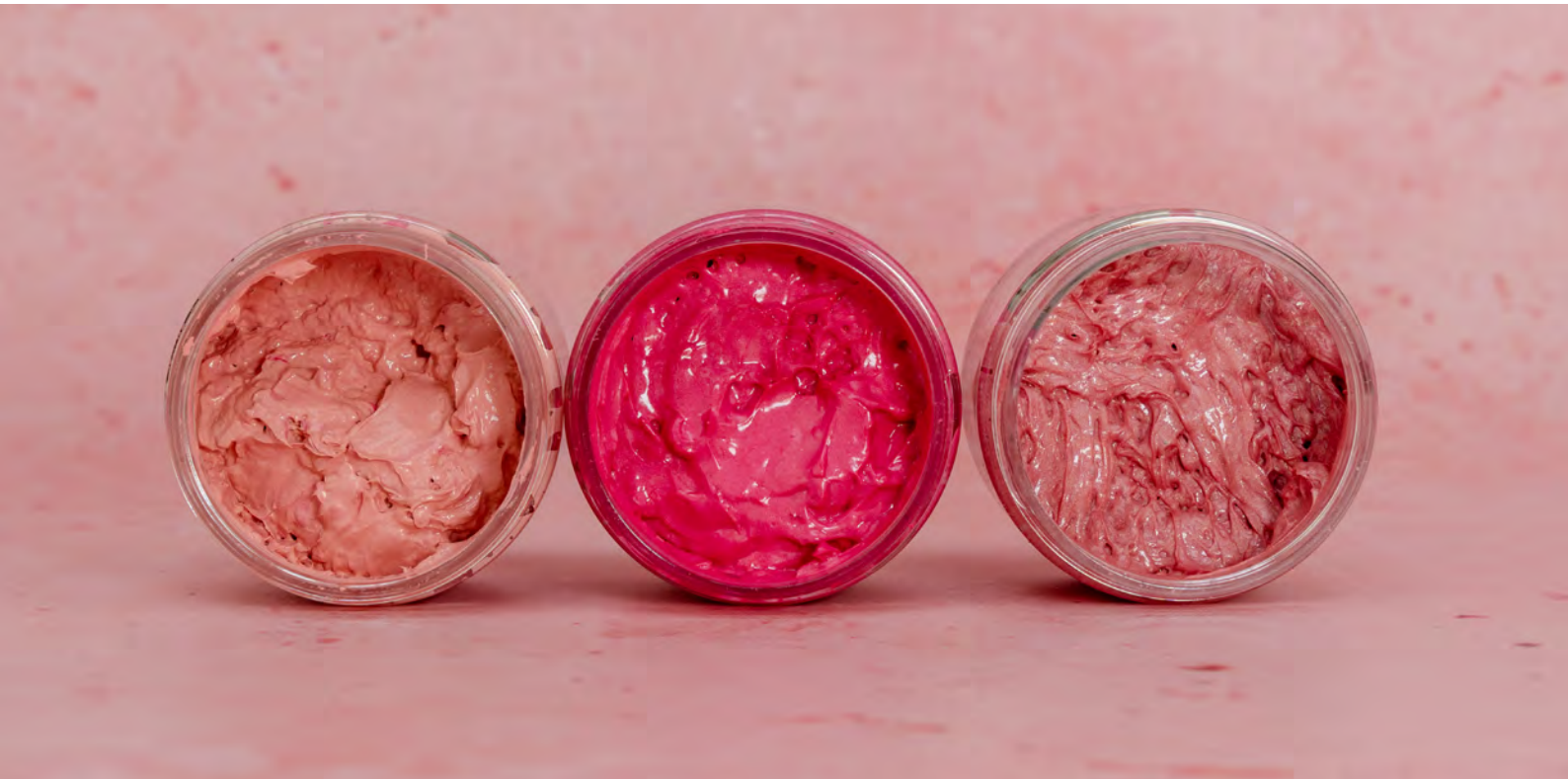
Which pigments are you using and why?
We are using blends of both matte pigments and colored micas as well as combinations of the two so we can achieve different finishes: shimmery, satin and matte.

Which other ingredients specific to this product type are you using and why?
We are using cornstarch and silica to create a silky, powdery finish.

We are also including Geogard 221 as a preservative.

FORMULA

Phase	INCI name	Trade name	Function	w/w%
A	Aqua	Purified water (deionized)	Solvent, carrier	59.9
A1	Xanthan Gum	Xanthan gum	Thickener	0.2
A1	Glycerin	Glycerin	Humectant	2.0
B	Cetearyl Wheat Straw Glycosides, Cetearyl Alcohol	Xyliance	Emulsifier	7.0
B	Simmondsia Chinensis (Jojoba) Seed Oil	Jojoba oil	Emollient	7.0
B	Coco-Caprylate	Coco-caprylate	Emollient	6.0
B	Cetyl Alcohol	Cetyl alcohol	Thickener	1.2
B	Various	Pigment mixture of your choice	Colorant	7.0
C	Silica	Silica	Thickener, dry finish	2.0
C	Zea Mays Starch	Starch	Dry finish	6.0
C	Benzyl Alcohol, Dehydroacetic Acid	Geogard 221	Preservative	0.9
C	Various	Fragrance	Fragrance	0.8



INSTRUCTIONS

1. Prepare your pigment mixture.
2. Weigh phase A into a beaker.
3. Premix all phase A1 ingredients into a separate beaker and stir until all the powder is dispersed.
4. Add phase A1 to phase A ingredients while mixing.
5. Weigh the phase A beaker containing the phase A and A1 ingredients. Record this weight to be used for water loss calculations later. Alternatively, you can cover the beaker with plastic wrap or a silicone cover to prevent evaporation.
6. Heat phase A to 75°C using a water bath or hot plate.
7. Weigh phase B ingredients and combine them in a beaker. Stir with a spatula to ensure the pigments are fully dispersed.
8. Heat to phase B to 75°C using a water bath or hot plate.
9. Once both phases are at the required temperature, remove phase A from the heat and weigh this beaker. Calculate the difference between this weight and the initial weight. This value represents water lost through evaporation. Add this amount of purified water lost back into the beaker.
10. Blend phase B with a stick blender until smooth.
11. Combine phases B and A, and homogenize with a stick blender until an emulsion forms.
12. Cool the mixture to 50°C stirring occasionally to help the batch cool consistently and add phase C ingredients. Mix thoroughly.
13. Adjust the pH to 4.5-5.5.
14. Allow to cool at room temperature.
15. Whip the mixture with an electric whisk for approximately five minutes to create an airy texture.
16. Transfer into a jar.

PRODUCT SPECIFICATIONS

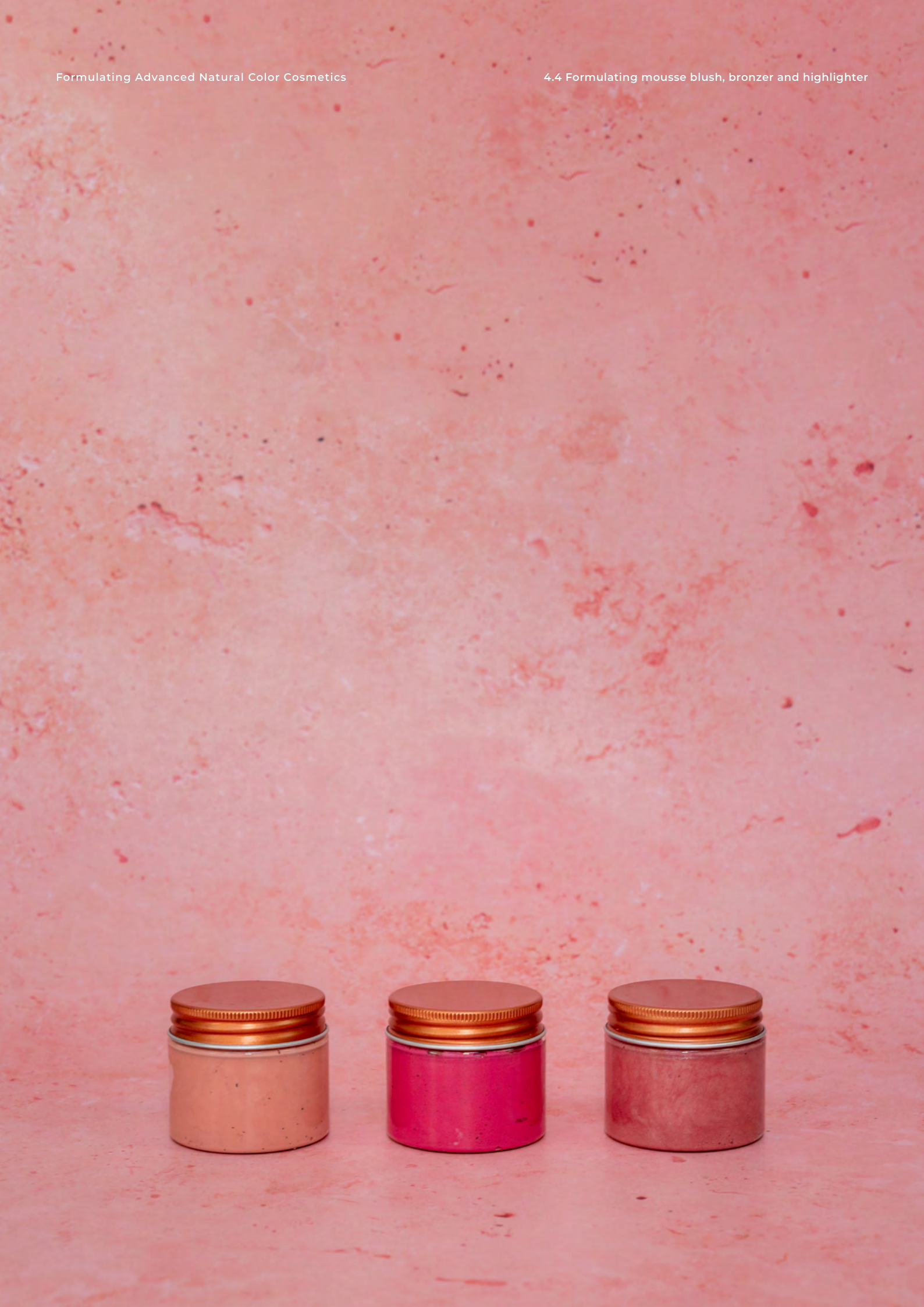
Appearance: Opaque, fluffy cream in a jar.

Viscosity: Airy, thick emulsion.

Color: Various.

Odor: Characteristics of the chosen fragrance.

pH: 4.5-5.5. The pH of our product was 5.3, which was within the specification and therefore required no adjustments.



ADJUSTING THE FORMULA

To adjust this formula, the basic rules of formulating an emulsion have to be respected. You can easily substitute xyliance with a different emulsifier. To ensure the viscosity remains the same, we suggest using a hot process emulsifier that comes in the form of solid pellets or granules. Different thickeners can be used to achieve different viscosities and textures.

Emollients can be selected according to the skin type the product is intended for, eg using richer emollients for drier skin. The product can also include different humectants as well as botanical extracts.

The pigment mixture you choose will determine whether the product is a blusher, bronzer or highlighter so you can experiment with using different pigment mixtures to create different product types.

You can create a pigment mixture to suit your skin tone and the look you wish to create. Advice about creating pigment blends can be found in Formulating Mineral Makeup, Module 4 Mineral Blushers, Bronzers and Highlighters and Module 1 Mineral Makeup Theory.

If you wish to create a bolder look you can use more pigment blend in your formula. For example, you can increase the amount of pigment used in a formula from 10% to 15%, or from 15% to 20%, etc.

PET RESULTS

As mousse products contain water, a Preservative Efficacy Test (PET), also known as a challenge test, is required to ensure the product is microbiologically safe. Our mousse blusher passed the PET with a criteria A pass, which is the highest pass it can achieve and demonstrates that the mousse blusher is safe for consumer use.

For more information on microbiological testing, including how to interpret PET results, please see our **Diploma in Natural Skincare Formulation** or refer to our short classes on preservatives, for example Experiment and Report: Testing Four Natural Preservatives or Pentylene Glycol: Natural Multifunctional Ingredient for Cosmetic Preservation.

TEST REPORTS

ANNEX NO. 1 TO THE TEST REPORT L43000/22/JSHS

RESULTS

Microorganisms	Log reduction					
	T 7	criteria	T 14	criteria	T28	criteria
Escherichia coli	**4,80**	≥ 3	**4,80**	≥ 3 and NI	**4,80**	≥ 3 and NI
Staphylococcus aureus	**4,81**	≥ 3	**4,81**	≥ 3 and NI	**4,81**	≥ 3 and NI
Pseudomonas aeruginosa	**4,79**	≥ 3	**4,79**	≥ 3 and NI	**4,79**	≥ 3 and NI
Candida albicans	**3,73**	≥ 1	**3,73**	≥ 1 and NI	**3,73**	≥ 1 and NI
Aspergillus brasiliensis	**2,45**	-	**3,74**	≥ 0	**3,74**	≥ 1 and NI

$Rx = lg\ N_0 - lgNx$

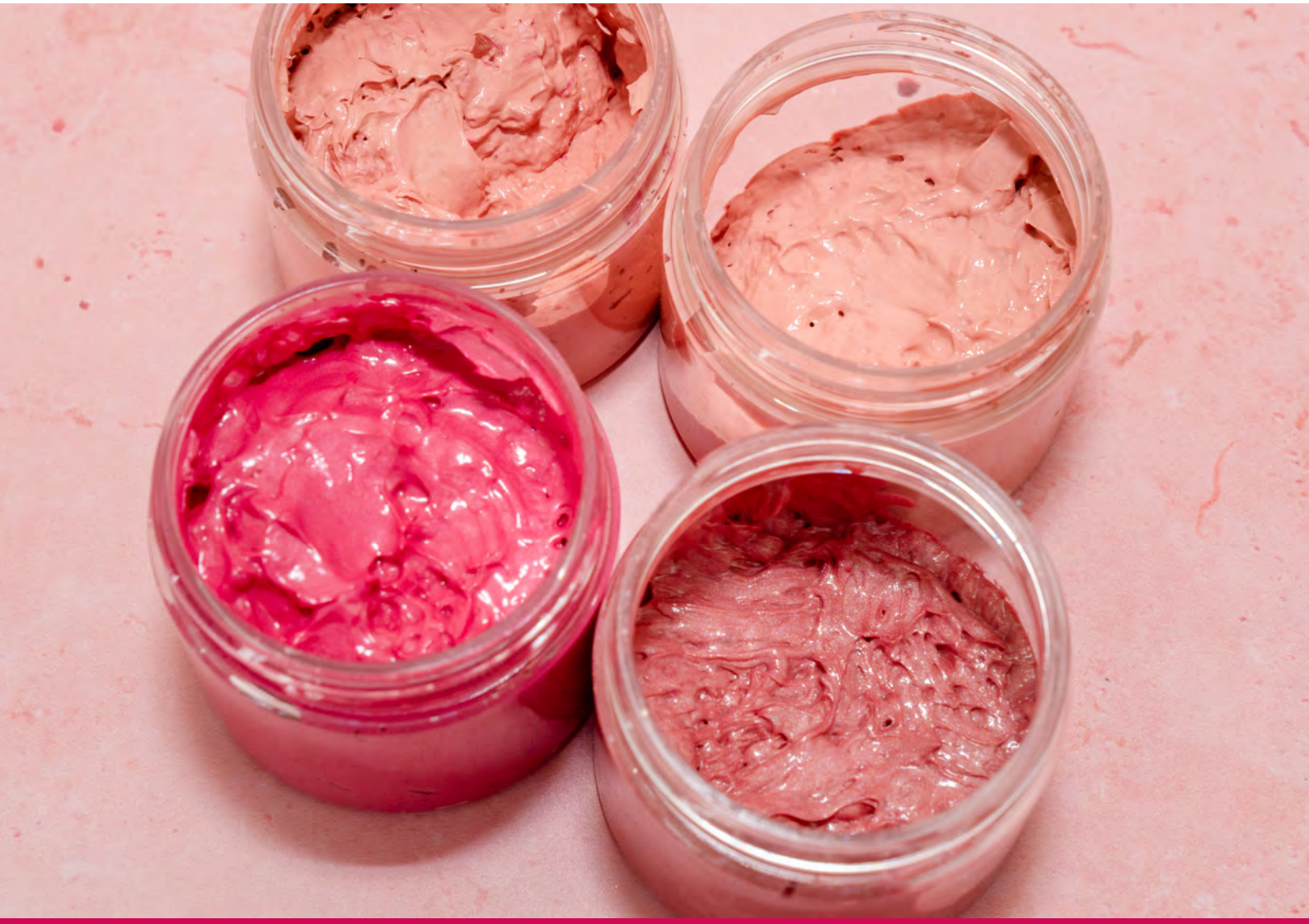
N_o- number of micro-organisms inoculated at time t_0

Nx- number of surviving micro-organisms at each sampling time t_x

NI- no increase in the count from the previous contact time T7,T14,T28 days

Conclusion: The test confirmed the efficacy of the antimicrobial protection of a cosmetic product. The product meets criteria A.

Annex date: 06.06.2022



SUMMARY

In this lesson we explained how to formulate mousse blusher, bronzer and highlighter. We provided a formulation template, an example formula for mousse blusher and the results of preservative efficacy testing.