



EXBERRY® Coloring Foods

Plant-based colors for plant-based fish

GROWING COLORS

EXBERRY®

Deliver **spectacular shades in fish alternatives** from smoked salmon to tuna steaks

84%

of consumers worldwide say the **color and appearance of plant-based products is important**⁴

Why color matters in plant-based fish

The plant-based fish market is gaining momentum worldwide, with a variety of fillets, slices, fish sticks, and burgers now on offer.¹

Replicating the sensory qualities of fish products is crucial to consumer acceptance. The focus is often on taste and texture, but color's importance should never be underestimated. It sets initial expectations and influences purchase decisions, with consumers expecting plant-based foods to have the same appearance, including color and opacity, as the animal products they replace.^{2,3}

Features

- Highly realistic color shades
- Clear and clean label declarations
- Guaranteed supplies all year round
- Fully traceable crops
- Sustainable production methods
- Exceptional customer support



Modern consumers want clean labels

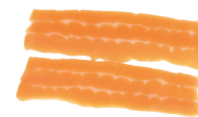
One of the barriers to plant-based purchases can be a perception that products are unnatural and heavily processed.⁵

Globally, 68% say they look at the ingredient list most or all of the time when buying plant-based food and drink, and 78.7% say plant-based products should be made with recognized ingredients.⁶

Using recognizable, plant-based coloring solutions helps reassure consumers that products are safe and healthy.



Plant-based salmon
0.30% EXBERRY® Shade Brilliant Orange
0.25% EXBERRY® Shade Fiesta Pink



Plant-based smoked salmon
2.54% EXBERRY® Shade Brilliant Orange

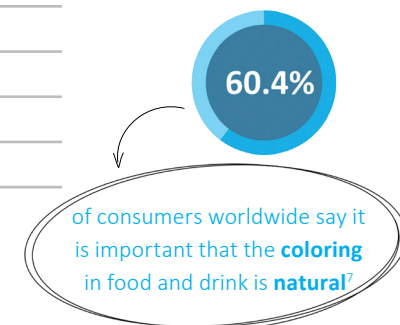


Plant-based tuna
0.15% EXBERRY® Shade Brilliant Orange
0.60% EXBERRY® Shade Vivid Red
0.30% EXBERRY® Shade Brown

EXBERRY® Shade	Raw material	Heat stability	pH dependant	May need ascorbic acid	Available as powder
EXBERRY® Shade Vivid Orange - OS	Pepper	✓	✗	✓	✗
EXBERRY® Shade Brilliant Orange	Pepper, carrot	✓	✗	✓*	✓
EXBERRY® Shade Red	Radish, carrot	✓	✓	✗	✓
EXBERRY® Shade Vivid Red	Carrot, blackcurrant	✓	✓	✗	✓
EXBERRY® Shade Fiesta Pink	Beetroot, carrot	(✓)**	✗	✓*	✓
EXBERRY® Shade Brown	Caramelized carrot, carrot	✓	✗	✗	✗

* Depending on application, processing and packaging properties

** Heat sensitive, performance depending on process conditions



Future-proof colors from EXBERRY®

EXBERRY® Coloring Foods are created from edible fruits, vegetables, and plants using physical processing methods such as chopping and boiling. Based on the concept of coloring food with food, they provide perfect synergy with the plant-based category and support completely clean and clear label declarations.

In the EU and many other parts of the world, EXBERRY® Coloring Foods can be listed simply as “concentrate of [name of raw material]”.

EXBERRY® can be used to create a wide variety of highly realistic fish alternatives. By utilizing concentrates from raw materials such as carrot, pepper, and beetroot, EXBERRY® can accurately mimic products including salmon fillets, tuna steaks, smoked salmon, and canned tuna.

Technical tips

Plant-based colors have varying characteristics including color hues and temperature and pH sensitivities. Selecting the right options will depend on the desired functionality.

Many pink, red, and purple shades contain anthocyanin pigments, which are influenced by the pH value of the application. To achieve the desired shade, it is necessary to understand the pH of your base during processing, cooking, and in the final product. EXBERRY® concentrates that contain carotenoid pigments may shift from orange to a yellow hue in the presence of fat. The protein source can also significantly affect the base color, which may influence the choice of EXBERRY® product and required dosage.

GNT provides full support throughout the product development process to ensure you identify the optimal solution for your project requirements.

EXBERRY®: Plant-based colors you can trust

EXBERRY® is the global market leader in Coloring Foods. We offer a full spectrum of shades in different formats to suit individual project requirements, including liquids, powders, and organic.

We have a vertical supply chain that gives us complete oversight of the non-GMO fruits, vegetables, and plants we use to make our Coloring Foods. This enables us to maintain our quality standards and guarantee year-round availability for all customers.

Get in touch today to find out how EXBERRY® can bring the best out of your plant-based fish & seafood products.

¹ Nowacka, M. et al. 'Plant-Based Fish Analogs—A Review' Applied Sciences (2023) | ² Wannasin, D. et al. 'Optimizing the appearance of plant-based foods using natural pigments and color matching theory' Research Square (2023) | ³ Kazir, M. & Livney, Y.D. 'Plant-Based Seafood Analogs' (2021) | ⁴ FMCG Gurus 'Custom Survey - Global and Regional -Meat & Plant-Based Protein' (2022) | ⁵ Gorman, M. et al. 'Perceptions of plant-based fish among Atlantic Canadians' Journal of Food Science (2023) | ⁶ FMCG Gurus 'Custom Survey - Global and Regional -Meat & Plant-Based Protein' (2022) | ⁷ FMCG Gurus 'Custom Survey - Global and Regional - Clean Label & Naturalness' (2023)



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