

NACTAROME



 **FIORIOCOLORI**
BY NACTAROME

TiO₂
REPLACERS

REPLACING TITANIUM DIOXIDE

A photograph of three cupcakes with white frosting, each in a different colored paper liner (yellow, pink, and orange), sitting on a white ceramic cake stand. The background is a soft, out-of-focus light blue.

TiO₂ REPLACERS BY FIORIOCOLORI

According to EFSA's latest evaluation based on consistent scientific data, E171 - Titanium Dioxide - does not appear safe for human consumption and has been banned for use in food and beverage applications across the European Union. Companies have been given until mid-2022 only to phase out its use and search for alternatives. However, latest reports have shown that other markets may be following suit.

Data from market research company Mintel shows that in the EU new product launches containing titanium dioxide have steadily declined since 2019 and manufacturers have been working to phase E171 out for some time now from all sorts of food and beverage products, including soups, baked goods, sauces, sandwich spreads, processed nuts, confectionery, cake icing and chewing gums.

Alternatives to TiO₂ have been hard to find, particularly for its cost-effectiveness and proven stability in a variety of applications and resistance to processing stress.

At FiorioColori, we have been working on viable natural alternatives to TiO₂ for some time, and have developed four solutions fully tested in selected applications.

CLOUD WHITE

FIORIONAT PN344WHITE

Developped for application in chocolate and anhydrous creams. Powder, preservative-free. Excellent heat stability.



CRYSTAL WHITE

FIORIONAT PN353WHITE

Developped for application in glazes and hydrated creams. Powder, preservative-free. Matches the brightness of TiO₂

POLAR WHITE

FIORIONAT PN342WHITE

Developped for application in sugar confectionery. Powder, preservative-free. Minimised airing during production.



SWAN WHITE

FIORIONAT PN348WHITE

Developped for application in confectionery. Powder, preservative-free. Perfect for panned candies.

SUMMARY

	SWAN WHITE	POLAR WHITE	CRYSTAL WHITE	CLOUD WHITE
CODE	PN348WHITE	PN342WHITE	PN353WHITE	PN344WHITE
APPLICATIONS	Panned Candies Chewing Gum	Gummies Jelly Gums	Glazes and hydrated creams	Chocolate and Anhydrous creams
Yield vs E171	5:1	1.38:1	10:1	10:1
LABELLING	Rice Starch, E473 Sucrose Esters of Fatty Acids, Natural Flavouring according to EU REG. 1169/2011	E170 Calcium Carbonate, E341 (iii) Tricalcium Phosphate, Natural Flavouring According to EU REG. 1169/2011	E170 Calcium Carbonate, Natural Flavouring according to EU REG. 1169/2011	E170 Calcium Carbonate, Natural Flavouring according to EU REG. 1169/2011
DOSAGE	15-25 g/kg	max 13,8 g/kg (in syrup)	50 g/kg	50 g/kg
SHELF-LIFE	12 months	12 months	12 months	12 months
SOLUBILITY	Water dispersible	Water dispersible	Water dispersible	Water / Oil dispersible
FORMAT	Powder	Powder	Powder	Powder