ROHA®

INNOVATING FOR YOU. WITH YOU.

NATRACOL®
COLORS INSPIRED FROM NATURE

# NATRACOL

**Colors enhanced with natural goodness**

# NATRACOL

Keeping up with the global trends in the food industry towards natural, healthier ingredients, ROHA's Natracol range focuses on manufacturing natural colors from a variety of natural sources like fruits, vegetables, plants, flowers and algae. Being at the forefront of this transformation, we efficiently address the growing market demand to present a portfolio of natural colors that covers clients' requirements. The Natracol range comes with the promise of ROHA's more than five decades of expertise in customer service and quality, which are aligned with international standards.

## NATRACOL PRODUCT RANGE

### ANNATTO INS160b

SHADE

Annatto color ranges from yellow to orange. It is extracted from the bixa orellana L. shrub and its main pigments are Norbixin (water soluble) and Bixin (oil soluble). This color is highly stable to light and heat. Annatto precipitates at acidic pH but acid-proof versions are also available within the ROHA range.

### ANTHOCYANIN INS163

SHADE

Anthocyanin can be found in over 300 varieties in red to blue colors. Being a rich source of polyphenols, they have a number of health benefits, too. Anthocyanins are natural pH indicators, changing from a strawberry red at pH 3 to a deeper blue-red as the pH increases. ROHA has a wide range of sources of Anthocyanin such as black carrots, elderberry, purple sweet potato, red radish and many more.

### BEETROOT RED INS162

SHADE

Beetroot Red is obtained by concentrating and pasteurizing the extracted beetroot juice directly obtained from the root of the vegetable Beta vulgaris. Betanins are the group of pigments that are responsible for the red to pink shades of beet juice which are fairly stable to light and pH. This water soluble pigment is utilised across multiple food applications such as confectionery, yogurt, ice cream, frozen desserts & fruit preparation. Roha also has a specialised red beet product with high resistance to heat.

### BETA-CAROTENES/CAROTENE INS160a

SHADE

Carotenoids are the primary source of yellow, orange and red colors of many fruit and vegetables. The variations of concentration, proportion and chemical structure of carotenoids influence its end application in various food products. ROHA can provide all types of beta-carotene from natural identical, to fungal and plant options. Paprika, lycopene, lutein, orange carrot and saffron contain different types of carotenoids that are used as natural food colors.

### CARAMEL INS150a-d

SHADE

Caramel colors are derived by controlled heating of carbohydrates. There are four different types of Caramel, distinguished by the way they are processed – Class I (150a), Class II (150b), Class III (150c) and Class IV (150d).

Class I (Plain) Caramel colors are produced using only caramelization reactions. Class II, III, and IV Caramel colors are obtained by caramelization and maillard browning reactions along with food grade nitrogen and/or sulfur, which contain ingredients that provide darker colors, as well as increase its stability. These colors have excellent heat, light and pH stability.

### CANTHAXANTIN INS161g

SHADE

Canthaxanthin is a carotenoid that occurs naturally in some fishes (salmon and trout), fungi, crustacean and flamingo feathers. It demonstrates good stability to light, heat and pH.

### VEGETABLE CARBON INS153

SHADE

CarboVegetabilis (or Carbon Black) is made from fine particles of carbonized vegetable material. Its shades range from grey to black and offers excellent pH, light and heat stability. ROHA offers two variants of this product - water dispersible suspension (paste) and powder form.

### CHLOROPHYLL AND CHLOROPHYLLIN/COPPER COMPLEXES INS140/INS141

SHADE

Chlorophyll (E140 (i)) is an oil-soluble green pigment found in leaves, grass, and vegetables capable of photosynthesis. It imparts an olive green color. The addition of copper, results in Copper Chlorophyll [E141 (i)], that is rendered water soluble to obtain Copper Chlorophyllin [E141(ii)], which provides a green-blue to green color. It has high stability towards light and heat. ROHA also offers acid-proof versions.

## COCHINEAL/CARMINE INS120

SHADE

Cochineal extract is a natural red dye, which is extracted from dried bodies of female insect-Dactylopius coccus Costa. Carmine is obtained by aqueous extract of the cochineal extract. The main coloring pigment in both the colors is Carminic Acid. These products have excellent light and heat stability. Blending with yellow and orange colorants can create more shades of red. Cochineal is the only natural color available in lake form, which is called Carmine.

## CURCUMIN INS100

SHADE

Curcumin is obtained  by solvent extraction of turmeric root i.e. ground rhizomes of Curcuma longa. L. Besides its excellent coloring characteristics, curcumin also displays anti-oxidant properties. Turmeric has a bright yellow to greenish yellow hue and is highly tolerant to heat and stable upto pH 7.

## IRON OXIDES INS172

SHADE

Iron Oxides are naturally occurring pigments, ranging from black, yellow, red and brown in color. They impart a pastel shade as opposed to some of the brighter and cleaner shades imparted by other colors. These pigments are excellent replacements for synthetic colors as they demonstrate high stability and consistent shades.

## LUTEIN INS161b

SHADE

Lutein is a yellow colored carotenoid, which is extracted from marigold flowers (Tagetes erecta). These flowers are grown abundantly throughout South America and Asia.This color demonstrates good stability to light, heat and pH. It is also consumed as a functional food due to its antioxidant properties. The range of yellow color offered by Natracol can be expanded by blending with other colors, such as green and red.

## LYCOPENE INS160d

SHADE

Lycopene is a natural red food color that belongs to the carotenoid group. It is obtained from tomatoes by fermentation or synthesis, and is strongly associated with health benefits due to its antioxidant properties. It demonstrates good stability to light and heat. The typical applications for lycopene include milk beverages and shakes, bakery, meat analogues, soups, sauces, and nutraceuticals.

## PAPRIKA OLEORESIN INS160c/PAPRIKA EXTRACT INS 160c(ii)

SHADE

Paprika, derived from dried ground fruit pods of Capsicum annuum, gets its color from capsanthin and capsorubin – the coloring pigments. Paprika oleoresin is obtained through flavoring and coloring principles combined by extraction upon using solvents that are eventually removed. Both, Paprika and Paprika Oleoresin are stable to heat and sensitive to light and pH conditions. They are water insoluble. ROHA offers an enhanced quality of Paprika with higher stability to light.

## RIBOFLAVIN INS101

SHADE

Riboflavin, also known as Vitamin B2, can be used to fortify food. It is obtained from milk, cheese, green leafy vegetables, liver, yeast, almonds and mature soybeans, by fermentation or by synthesis. Exposure to light can destroy Riboflavin in natural sources and cause fading. It can be difficult to incorporate Riboflavin into many liquid products as it has poor solubility. As an alternative, E101a boflavin-5-Phosphate is a better soluble form of Riboflavin. This water soluble pigment is utilised across multiple food applications such as confectionery, pasta, noodles, dairy products, soups & baby foods.

## TITANIUM DIOXIDE INS171

SHADE

Titanium Dioxide is manufactured from Ilmenite and Rutile ores. It is a brilliant white pigment that can be applied to food, drugs and cosmetics. Titanium Dioxide pigments are inert and thus have excellent light, heat and pH stability. They are also used to add opacity to products. Its liquid form is easier to incorporate into products. ROHA offers a special formulation of Titanium Dioxide Dispersion that does not present sedimentation during storage of color.

# NATRACOL PRODUCT RANGE

| PRODUCT NAME | COLOR* | pH STABLE | HEAT STABLE | LIGHT STABLE | FORMS AVAILABLE | DAIRY | | | | CONFECTIONERY | | | | | BEVERAGES | | | | | | PREPARED FOODS | | | | | MEAT | | | | | | PET FOODS | | PHARMA | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | DAIRY BEVERAGES | YOGURT & FRUIT PREPARATIONS | ICE CREAM | CHEESE & PROCESSED CHEESE | CHOCOLATE & COMPOUNDING COATINGS | GUMMIES & JELLIES | HARD CANDIES | PANNED CANDIES | OTHER | CARBONATED SOFT DRINKS | STILL BEVERAGES | JUICE BASED BEVERAGES | SPORTS DRINKS | FORTIFIED BEVERAGES | POWDERED BEVERAGES | ALCOHOLIC BEVERAGES | BAKED GOODS (COOKIES, CRACKERS, CAKES) | SAUCES, SOUP & CONDIMENTS | DRY MIXES & SEASONINGS | EXTRUTED SNACKS & CEREALS | PASTA & NOODLES | RAW MEAT | FULLY COOKED MEATS (NOT SHELF STABLED) | CANNED MEAT | ANALOGUE USE | SEA FOODS | CASINGS | DRY | WET | COATED TABLETS | COMPRESSED TABLETS | CAPSULES | LIQUID (SYRUPS, MOUTH WASHER, DISINFECTION) | POWDER/ GRANULAR | OINTMENT - FAT CREAM | OINTMENT - GEL |
| NATRACOL CURCUMIN/ TURMERIC/ TURMERIC OLEORESINS | | 2.5-7.0 | GOOD | FAIR | • WATER SOLUBLE LIQUID • WATER SOLUBLE POWDER • OIL SOLUBLE LIQUID | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | | | | Y | | Y | Y | Y | Y | Y | | Y | Y | | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| NATRACOL LUTEIN | | 3.0-7.0 | GOOD | GOOD | • WATER SOLUBLE LIQUID • WATER SOLUBLE POWDER • OIL SOLUBLE LIQUID | Y | Y | Y | Y | Y | | | | | Y | Y | Y | Y | Y | | | | Y | | Y | Y | | | | Y | | | | | Y | | | | | |
| NATRACOL ANNATTO | | 2.5-8.0 | GOOD | FAIR | • WATER SOLUBLE LIQUID • OIL SOLUBLE LIQUID • ACID STABLE LIQUID • WATER SOLUBLE POWDER | Y | | Y | Y | Y | Y | Y | Y | Y | | Y | | Y | Y | Y | Y | Y | Y | Y | Y | | Y | Y | Y | Y | Y | Y | | Y | Y | | Y | Y | | Y | |
| NATRACOL BETA CAROTENE/ CAROTENES | | 2.0-7.0 | GOOD | GOOD | • WATER SOLUBLE LIQUID • WATER SOLUBLE POWDER • OIL SOLUBLE LIQUID • EMULSIONS & CLEAR EMULSIONS | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | Y | Y | Y | Y | Y | | Y | Y | Y | Y | | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| NATRACOL PAPRIKA | | 3.0-7.0 | GOOD | FAIR | • WATER SOLUBLE LIQUID • WATER SOLUBLE POWDER • OIL SOLUBLE LIQUID • DEODORIZED PAPRIKA OLEORESIN • PAPRIKA OLEORESIN THAT CONTAINS COLOR AND FLAVOUR | Y | | | | | | | | | | | | | | Y | | | Y | Y | Y | | Y | Y | Y | Y | Y | Y | | Y | | | | | | | |
| NATRACOL BEETROOT | | 5.0-7.0 | POOR | POOR | • WATER SOLUBLE LIQUID • WATER SOLUBLE POWDER | Y | Y | Y | Y | | Y | Y | Y | Y | | | | | | Y | Y | | | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | Y | | | |
| NATRACOL APO CAROTENE | | 3.0-7.0 | GOOD | GOOD | • WATER SOLUBLE LIQUID • WATER SOLUBLE POWDER • OIL SOLUBLE LIQUID • EMULSIONS | Y | Y | Y | Y | Y | Y | Y | | Y | Y | Y | Y | Y | Y | Y | | | Y | Y | | Y | Y | | | Y | Y | Y | Y | | | | | | | | |
| NATRACOL CANTHAXANTHIN | | 2.5-9.0 | GOOD | GOOD | • WATER DISPERSIBLE POWDER • WATER SOLUBLE LIQUID • OIL DISPERSIBLE LIQUID | Y | Y | | Y | | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | Y | | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | | | | | |
| NATRACOL CARMINE | | 2.5-8.0 | EXCELLENT | EXCELLENT | **CARMINE** • WATER SOLUBLE LIQUID • WATER SOLUBLE POWDER **ACID CARMINIC** • WATER SOLUBLE LIQUID • ACID STABLE LIQUID • WATER SOLUBLE POWDER • LAKE POWDER • LAKE DISPERSION | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| NATRACOL CHLOROPHYLL/ COPPER CHLOROPHYLLIN | | 3.0-8.0 | GOOD | GOOD | • WATER SOLUBLE LIQUID • ACID STABLE LIQUID • WATER SOLUBLE POWDER • ACID STABLE POWDER • OIL SOLUBLE LIQUID | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | Y | Y | Y | Y | Y | Y | Y | | | Y | Y | | | Y | Y | Y | Y | Y | Y | Y | Y | |
| NATRACOL CARAMEL | | 3.0-7.0 | GOOD | FAIR | • WATER SOLUBLE POWDER • WATER SOLUBLE LIQUID | Y | Y | Y | Y | | Y | Y | Y | Y | Y | Y | Y | | | Y | Y | Y | Y | Y | Y | Y | | Y | Y | Y | Y | Y | Y | Y | | | | | | |
| NATRACOL IRON OXIDE BROWN DISPERSION | | 3.0-7.0 | EXCELLENT | EXCELLENT | • POWDER • WATER DISPERSIBLE SUSPENSION • OIL DISPERSIBLE SUSPENSION | | | | | | | Y | | | | | | | | | | Y | Y | Y | Y | | | Y | | | | Y | Y | | | | | | | |

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| NATRACOL TITANIUM DIOXIDE | | DISP | GOOD | GOOD | • POWDER • WATER DISPERSIBLE PASTE | | | | | | | | | | | | | | | | | | Y | Y | Y | Y | | | Y | | | | Y | Y | | | | | | | |
| NATRACOL RIBOFLAVIN WSP | | 2.5-8.0 | GOOD | POOR | • WATER SOLUBLE POWDER • WATER DISPERSIBLE LIQUID | | | | | | Y | Y | | Y | | | | | | | | | Y | Y | Y | Y | | | Y | | | | Y | Y | | | | | | | |
| NATRACOL ANTHOCYANINS | | 2.0-5.0 | GOOD | GOOD | • WATER SOLUBLE POWDER • WATER SOLUBLE LIQUID | | Y | Y | | | Y | Y | Y | Y | Y | Y | Y | Y | Y | | Y | | | Y | Y | | | | | | | | | | | | | | | | |
| NATRACOL CARBON BLACK | | 3.0-8.0 | EXCELLENT | EXCELLENT | • POWDER • WATER DISPERSIBLE PASTE | | | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | | | Y | Y | Y | Y | Y | Y | | | | | | | | Y | | | Y | | Y | Y |
| INFUSIONS RANGE - The new and innovative natural color delivery system for fat matrix: perfect dispersible, brightness and stability for an extensive range of solutions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NATRACOL INFUSION GREEN | | 3.0-7.0 | FAIR | EXCELLENT | • LIQUID OIL SOLUBLE | | | | | Y | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| NATRACOL INFUSION MINT GREEN | | 3.0-7.0 | FAIR | EXCELLENT | • LIQUID OIL SOLUBLE | | | | | Y | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| NATRACOL INFUSION LIME GREEN | | 3.0-7.0 | FAIR | EXCELLENT | • LIQUID OIL SOLUBLE | | | | | Y | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| NATRACOL INFUSION RUBY RED | | 3.0-7.0 | GOOD | EXCELLENT | • LIQUID OIL SOLUBLE | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| NATRACOL INFUSION CANDY RED | | 3.0-7.0 | GOOD | EXCELLENT | • LIQUID OIL SOLUBLE | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| NATRACOL INFUSION YELLOW | | 3.0-7.0 | GOOD | EXCELLENT | • LIQUID OIL SOLUBLE | | | | | Y | | | | | | | | | | | | Y | Y | | | Y | | | Y | Y | | | | Y | | | | | | |
| NATRACOL INFUSION TORTILLA BROWN | | 3.0-7.0 | FAIR | EXCELLENT | • LIQUID OIL SOLUBLE | | | | | Y | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| NATRACOL INFUSION COFFEE BROWN | | 3.0-7.0 | FAIR | EXCELLENT | • LIQUID OIL SOLUBLE | | | | | Y | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |

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# CERTIFICATION

ROHA's food division has been certified by leading regulatory bodies like ISO, Kosher, Halal, FAMIQS, BRC, Food Safety, ISO 22000 & Organic Certification and Industrial dyes and pigments division is certified by EU REACH Registration.



# ROHA: INNOVATING WITH YOU. FOR YOU.

ROHA is a leading global manufacturer and distributor of synthetic, natural, clean label food colors, dried ingredients and industrial dyes and pigments. ROHA is a part of the JJT Group which is a force that positively transforms the lives around it.

Established in the year 1972 in Maharashtra, India, ROHA is constantly evolving to serve its clients by co-creating new and innovative solutions that anticipate future requirements and developments. At the core of such innovation are 14 manufacturing facilities and 14 application labs spread across the world. Headquartered in India, ROHA's international network extends to 22 countries having robust technology, logistics, regulatory, and manufacturing teams.

At ROHA we constantly look at innovations to better ourselves and keep up with the latest trends and technologies. We believe in **TEAM, INNOVATE, CREATE** and **REACH** philosophy that transforms the way we work, the way we see and use ingredients, and the value we will bring to clients.

**TEAM -** With an already amazing team at ROHA, we always try to synergise within and across the teams to develop a strong working environment.

**INNOVATE –** Innovation goes from colors to processes with the help of extensive new-age technologies in order to deliver the best value.

**CREATE -** With over 200 natural & synthetic colors, industrial hues and array of extracts and dried ingredients we constantly being raised in response to consumer demands to meet the competitive nature of the marketplace.

**REACH -** Our interactions do not end where geographical borders do. We have strategically placed offices on every continent to be able to serve you anywhere.

## GLOBAL PRESENCE

Offices in 22 Countries

Manufacturing Units in 14 Countries

Application Labs in 14 Countries

## SCAN TO CONNECT AND DISCOVER MORE

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## OUR BRANDS

FOOD COLORS

IDACOL® ULTIMATE SYNTHETIC COLORS

NATRACOL® COLORS INSPIRED FROM NATURE

FUTURALS® NATURE AT ITS BEST

DRIED INGREDIENTS

OVEGI Dehydrated Ingredients

INDUSTRIAL COLORS

SIMPSONS® DYES & PIGMENT SPECIALISTS