



Nature's Answer to Synthetic Colours.

The continuous debate regarding synthetic colours and the possible links with behavioural problems in children, keep pushing synthetic additives to the forefront of the media spotlight.

In recent years there has been a significant increase in claims regarding "No Artificial Colours or Flavours" and using ingredients in formulations rather than additives to improve the overall appearance of food and beverage applications.

Today's consumers are much more aware than ever before of the names of additives. Therefore the combination of increasing consumer knowledge and the negative press surrounding synthetic additives has led to manufacturers and retailers, demanding more natural solutions, from the food ingredients industry.

Overseal Natural Ingredients are at the forefront in ensuring that manufacturers have a number of alternative colouring options available to synthetic additives for a variety of applications. That still enables their finished application to look vibrant and appealing without the use of synthetic additives.

Overseal are able to provide a number of nature's colour solutions specifically for the confectionery industry. Overseal products can be used in a number of confectionery applications, ranging from hard boiled candies, gums and jellies to sugar coated confectionery and many more. The colour options from Overseal fall under two main categories, colouring foodstuffs and naturally derived colours.



- Colour Options available from Overseal

1. **Naturally Derived Colours**, using colouring pigments produced by nature. Liquid & powder, water-soluble, oil-dispersible, customised formulae
2. **Colouring Foodstuffs**, sourced from fruits, vegetables, berries and other edible plants that contain colour naturally. Without the use of selective extraction these foodstuffs undergo simple processes allowing for a cleaner labelling declaration.

To be able to produce highly stable colour formulations, you need to have the knowledge and understanding of how colours work – their different properties, how they interact with other ingredients and what the manufacturer requires from them.

Overseal are able to produce highly stable, vibrant colours for a variety of applications, due to their vast technical knowledge.

Very often synthetic colours have hue/shades that cannot be matched with one single pigment. Blends of two or three natural pigments are needed to give a viable option as an alternative to synthetic colours.

Typical examples of alternatives to synthetics

Synthetic Colours	Examples of Naturally Derived Colour Alternatives	Examples of Colouring Foodstuffs Alternatives
Tartrazine (E102)	Curcumin (E100) or Lutein (E161b)	Turmeric or Safflower
Quinoline Yellow (E104)	Curcumin (E100)	Turmeric
Sunset Yellow (E110)	Paprika (E160c)	Paprika
Azorubine/carmoisine (E122)	Beetroot (E162) + Carotene (E160a) Carmine (E120) + Carotene (E160a) Magento™ (E163) + Carminic Acid (E120)	Beetroot + Carrot Blend
Amaranth (E123)	Beetroot (E162) or Carmine (E120) or Magento™ (E163) + Carminic Acid (E120) Carantho® (E163) or Radish (E163)	Beetroot Blackcarrot or Radish
Ponceau 4R (E124)	Beetroot (E162) + Carotene (E160a) Magento™ (E163) + Carminic Acid (E120) Carantho® (E163) or Radish (E163)	Beetroot + Carrot Blend Blackcarrot or Radish
Allura Red (E129)	Beetroot (E162) + Carotene (E160a) Magento™ (E163) + Carminic Acid (E120)	Beetroot + Carrot Blend
Green S (E142)	Copper Chlorophyllin (E141)	Spinach or Nettle
Brown HT (E155)	Caramel (E150d) + Beetroot (E162)	Caramelised Sugar Syrup + Beetroot Blend
Brilliant Black (E151)	Carbon Black (E153)	Black Carrot + Spinach Blend

The stability of naturally derived colours is sometimes questioned. However antioxidants for example can be used to improve the stability of carotenoids, such as carotene, paprika and lutein. New formulation technology has improved the stability of naturally derived colours for example; curcumin has been used successfully in confectionery applications.

The majority of naturally derived colour formulations available from Overseal have 9-12 months shelf life.

Naturally derived colours or colouring foodstuffs offer the advantage, of a natural colour option compared to that of synthetics. Their stability has been questioned in the past, but over the last few years a lot of resource has been invested in the research and development of these products. Now there is no doubt that Overseal can offer a solution to each synthetic replacement. Although the colour shade obtained with natural alternatives is not always identical to that of its synthetic counterpart. Natural options offer the advantage of associated health benefits, free from unnecessary chemicals and have an excellent stability in final application.

At Overseal we are well placed to meet the future trends of the dynamic market, with our worldwide distributor network and strategically positioned offices within the growing markets along with a creative and extensive development team; we are adapted to turning the next idea into a practical, workable colour solution.

At **Overseal** we focus on technical innovation, quality and customer support and our aim is always to meet, and exceed, our customer's expectations

