

BFP® 550

ENSEMBLE® non-PHO Emulsifiers



PHOs: the race to non is **on.**

Four reasons to begin the non-PHO conversion now.

- 1 FDA Mandate:** Food and beverage manufacturers must be PHO compliant by June 18, 2018.
- 2 Diminishing PHO Supply:** As oil producers move away from PHOs, the supply available to the market will decline.
- 3 Testing Time:** Validation of PHO alternatives can be lengthy and time-consuming.
- 4 International Ripple Effect:** Other countries are currently re-evaluating their own legislation regarding PHOs.

When it comes to removing partially hydrogenated oils from formulations, it's not enough to just substitute a non-PHO option. You deserve more. That's why Corbion created ENSEMBLE - the full line of non-PHO emulsifiers that knows how to play together, right from the first note.

Drop it in. Move on.

Corbion experts have re-engineered our popular emulsifier portfolio with one goal in mind: provide non-PHO options that deliver drop-in ease while maintaining flavor, texture, quality, ease of handling and shelf stability.

The result? ENSEMBLE non-PHO emulsifier solutions minimize reformulation hurdles and operational disruptions, allowing you to simplify and streamline formulation efforts.

Start with BFP® 550

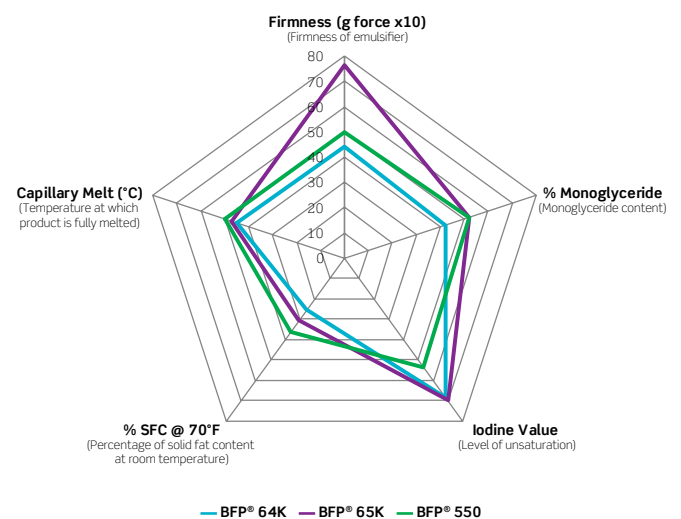
Corbion first launched our BFP portfolio of mono and diglycerides in the 1960s. BFP® 550, the non-PHO version of BFP® 64 K and BFP® 65K, is the latest in this pioneering line. BFP® 550 retains that ease of handling and delivers the same functionality and quality of its PHO counterparts (Figure 1).

Whether you're using it for baked goods, such as muffins and cupcakes, or for shortening, icing or frozen desserts, BFP® 550 gives baked goods improved texture, shelf life and eating characteristics. And with BFP® 550, handling remains easy. It's simple to cream this non-PHO emulsifier into an application - or even use it chilled.

- ▶ Drop-in solution
- ▶ Maintain flavor, texture and quality
- ▶ Retain handling and stability

Comparative property analysis of BFP 550

Figure 1



BFP® 550 Applications

	Category	Function	Usage Rate	Comments
Bakery	Breads & Rolls	Dough conditioner	0.25%-1.0% flour basis	Anti-staling, crumb softener
	American-style Biscuits, Cookies, and Crackers	Dough development	0.5%-2.0% flour basis	Ease of processing
	Batters	Emulsion stability	1.0%-3.0% flour basis	Batter emulsion and aeration stability
	Cake Mixes	Batter aeration, cell structure, anti-staling	4.0%-5.0% fat basis	Helps aerate and stabilize the batter
	Icings	Aeration, fat dispersion, stability	2.0%-6.0% based on shortening	Improves mouth feel and prevents weeping
	Tortillas & Flatbreads	Shelf life extension, flexibility, ease of wrapping	0.5%-1.0% flour basis	Different physical forms available to provide processing flexibility; Gives better mouthfeel and softness
Confection	Caramel	Fat dispersion in caramel	0.5%	Controls fat dispersion in caramel
Beverage	Sports drinks/ nutritional supplements	Flavor stability	as required	Improves flavor stability
Dairy/Non-Dairy	Coffee whiteners, solid liquid	Emulsification, dispersion aid, stability	0.2%-2.0% formula wt	Helps create emulsion and aids fat dispersion
	Imitation sour cream & dip	Stability, mouth feel	0.5%-1.0% formula wt	Improves mouth feel and increases stability
	Whipped Toppings, Liquid & Powdered	Emulsification	0.5%-1.0% formula wt	Helps create emulsion while improving texture, mouth feel
Processed Foods	Margarine and spreads	Margarine emulsification	0.4%-0.6% formula wt	Facilitates margarine emulsification, increases stability
	Shortening	Shortening emulsifier	2.5%-10% formula wt	Emulsifier for high ration cake & icing shortenings
	Processed potatoes	Improves sheeting	0.5%-2.0% formula wt	Increases stability and shelf life while improving moutheel
	Sauces & Gravies	Increased stability	0.5%-2.0% formula wt	Increases stability and shelf life while improving mouthfeel

Let Corbion help you make the non-PHO conversion *simple*. +1-800-669-4092

- ▶ *Learn about our additional non-PHO solutions at CorbionEnsemble.com*
- ▶ *Request your free sample at corbion.com*
- ▶ *Get R&D support for your non-PHO conversion needs at corbion.com/contact*

With over 100 years of global food technology experience and an extensive portfolio of high quality products, Corbion has a wealth of expertise in the world of bakery ingredients. Corbion is a leading company in natural food preservation, lactic acid based bioplastics, biobased chemicals and the worldwide market leader in lactic acid, lactic acid derivatives and lactides. Corbion operates 10 production plants, in the USA, the Netherlands, Spain, Brazil and Thailand, and markets its products through a worldwide network of sales offices and distributors.

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