

## LOW FAT SPREADS FOR HEALTHIER FORMULATIONS

Recent global food trends are most likely skewed towards meeting the needs of healthier lifestyles. The rise of veganism, vegetarianism and the lesser known but most common flexitarianism has dictated the need for more plant based alternatives that are made using sustainable ingredients and are sourced responsibly. Futura Ingredients addresses this with our Ekölite PGPR 90 for low fat spreads.

### What are low fat spreads?

Ideally a low fat spread is an emulsion that can have a fat content in the range of 35% - 65% fat, and have now reduced to as low as 10% fat that are great for low fat margarines or lite margarines. However the problem in balancing the other parameters that make a good low fat spread like the taste, quality, spreadability and mouthfeel become the challenge. These are crucial parameters to convince a consumers demand to incorporate a healthier spread in their daily life.

Consumers today are also concious of the impact their choice have on their and the environment. Therefore, there is an increase awareness for products that are zero allergent, non -GMO certified, reduced salt content with no hydroganated oils or emulsifiers. To add to that consumers today are seeking for products that are made of sustainable ingredients, responsibly sourced and RSPO certified.

### Ekölite PGPR 90 is your answer!

The reduced fat and higher water level emulsion requires higher emulsifier dosages and the right emulsifier mixture! Here, Ekölite PGPR 90 plays a crucial role in stabilising the small water droplets in the formulation.

#### Ekölite PGPR 90

- **Exceptional water binding properties**
- **Stablises viscous emulsion**





## EKÖLITE PGPR 90 IN LOW FAT SPREADS

PGPR stands for Polyglycerol Polyricinoleate. These are esters of castor oil fatty acid which is a 90% ricinoleic acid that is also non-ionic. PGPR has higher lipophilic character compared to other PGE, in favour to form W/O emulsion. It is also neutral in taste and smell.

Futura Ingredients Ekolite PGPR 90 has exceptional water binding properties such as :

- Hydrophilicity of polyglycerol & polyricinoleic acid in its structure
- Enables the formation and dispersion of uniformly fine water droplets during emulsion formation

It also creates a stable viscous emulsion imparting necessary emulsion stability. Which is especially critical for low fat emulsions.

### Regulated usages and dosages within food applications

EU - Maximum 0.4% in spreadable fat only  
 (having a fat content of 41% or less)

USA - Generally Recognized As Safe (GRAS) based on 21 CFR 170.30

### REFERENCE FORMULA

INGREDIENTS	DOSAGE (%)
<b>Oil phase</b>	
Oils / Fats Blend	40.0
<b>Ekömul MG 90 S</b>	<b>0.7</b>
Lecithin (Bleached)	0.2
<b>#EKÖLITE PGPR 90</b>	<b>0.3</b>
β-carotene	0.002
Oil soluble flavour	0.02
Vitamin	0.0042
<b>Water phase</b>	
Water	58.3
Skimmed milk powder	0.5
Salt	0.3
Potassium Sorbate	0.1
Citric Acid (to adjust until pH 5.5)	+
<b>TOTAL</b>	<b>100.0</b>