

# EKÖLITE PE 80 O

## UNSATURATED POLYGLYCEROL ESTERS



### *Introduction*

Emulsifiers are one of the most critical ingredients in the making of margarines. In addition to the fundamental lecithin and monoglycerides for the functionalities below:

- Promotes crystallisation and stabilises the liquid emulsion
- Reduces interfacial tension between fat and water phases
- Allows formation of fine and stable water droplets within the system
- Ensure product homogeneity with good keeping properties, both functionality and overall microbiological quality

Other emulsifiers like polyglycerol esters are added for improved functionalities. The unsaturated polyglycerol esters, **Ekölite PE 80 O**, is designed specifically to enhance the aeration capabilities in margarine formulations.

### PRODUCT NAME

■ Ekölite PE 80 O



Winner of  
Frost & Sullivan's  
2016 Best Practices Award  
Entrepreneurial Company  
of the Year



Winner of  
Frost & Sullivan's  
2018 Best Practices Award  
Food Ingredients  
Company of the Year

Unsaturated polyglycerol esters, **Ekölite PE 80 O**, is typically dosed at 0.2 – 0.5% in margarine formulations to aid aeration and to impart foam stability. In cakes application, it gives a more stable batter, also a better cake volume.

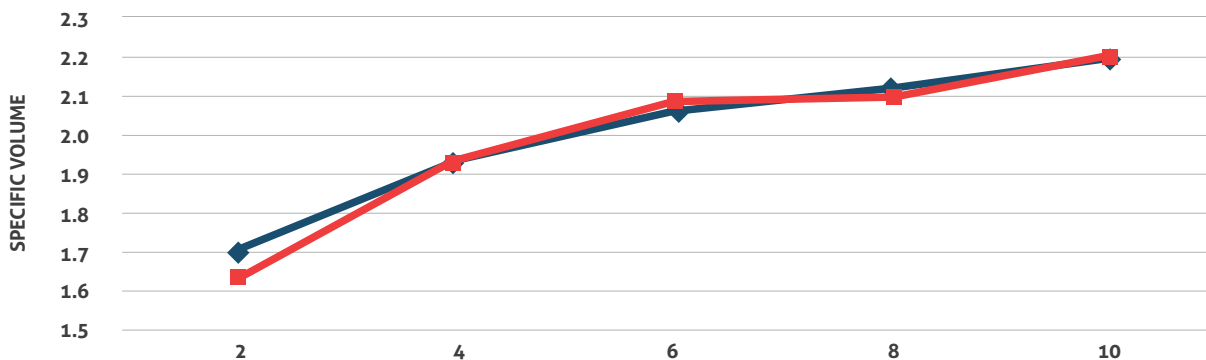
An example of a creaming margarine formulation adopting **Ekölite PE 80 O** is given below:

INGREDIENTS	DOSAGE (%)
<b>OIL PHASE</b>	
Oils / Fats Blend	80.674
Lecithin	0.20
DMG Ekömul MG 95 HP	0.30
Unsat. PGE Ekölite PE 80 O	0.30
-carotene	0.001
Oil soluble butter flavour	0.025
<b>WATER PHASE</b>	
Water	16.00
Salt	2.50
Citric acid	To pH 5

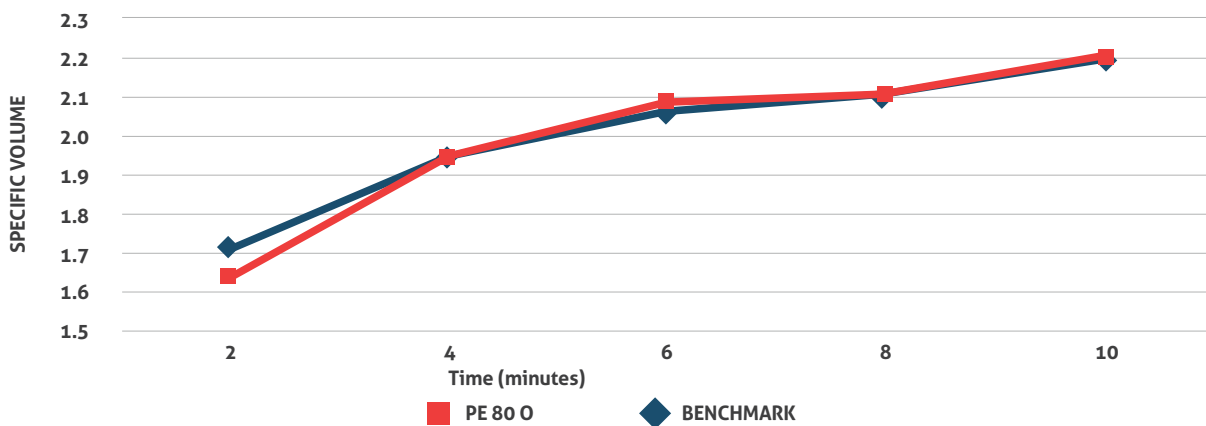
## Aeration Capabilities

### Unsat. PGE Applications - Creaming Margarines

Margarines added with unsaturated polyglycerol esters 0.3% **Ekölite PE 80 O** show improved aeration capabilities over the reference sample.



All samples are added with 0.3% **Ekömul MG 95 HP**, 0.2% lecithin



All margarine samples are added with emulsifiers below

PE 80 O : 0.3% **Ekömul MG 95 HP**, 0.2% lecithin, 0.3% **Ekölite PE 80 O**

Benchmark : 0.3% **Ekömul MG 95 HP**, 0.2% lecithin, 0.3% Benchmark PGE

## Products Specification

<b>PRODUCT NAME</b>	<b>EKÖLITE PE 80 O</b>
E-number	E475
Feedstock	Soya bean / Palm
Product format	Viscous liquid / Paste
Iodine Value (g I <sub>2</sub> /100g)	74 - 90
Saponification Value (mg KOH/g)	135 - 165
Acid Value (mg KOH/g)	Max. 4
Melting Point (°C)	36 - 40
Product Shelf Life	12 months after date of manufacturing
Packaging	20kg open top pail

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