

EKÖMUL NEXT SERIES

NEXT GENERATION CRUMB SOFTENER

*Designed by Nature,
 Optimised for the Future*

Improved
 powder quality

Superior
 crumb
 softening

Improved
 powder
 flowability

Trans
 Free Fat

The new **Ekömul NEXT Series** designed to be used in breads and various bakery goods, imparts SUPERIOR crumb softening properties over the existing distilled monoglycerides options available in the market. The **Ekömul NEXT Series** has improved powder flowability for better dispersion in dough, and improved powder quality that provides resistance over compaction, which is crucial for supply chain stability and functionality.

Product Specification

PRODUCT NAME	EKÖMUL NEXT 01 P	EKÖMUL NEXT 01 R
FEEDSTOCK	PALM	RAPESEED
SAPONIFICATION VALUE	135 – 185 MG KOH/G	135 – 185 MG KOH/G
ACID VALUE	MAX 25 MG KOH/G	MAX 25 MG KOH/G
MELTING POINT	62 – 66°C	66-71°C
SHELF LIFE, MONTHS	24	24
E-NUMBER	E471 & E481	E471 & E481

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



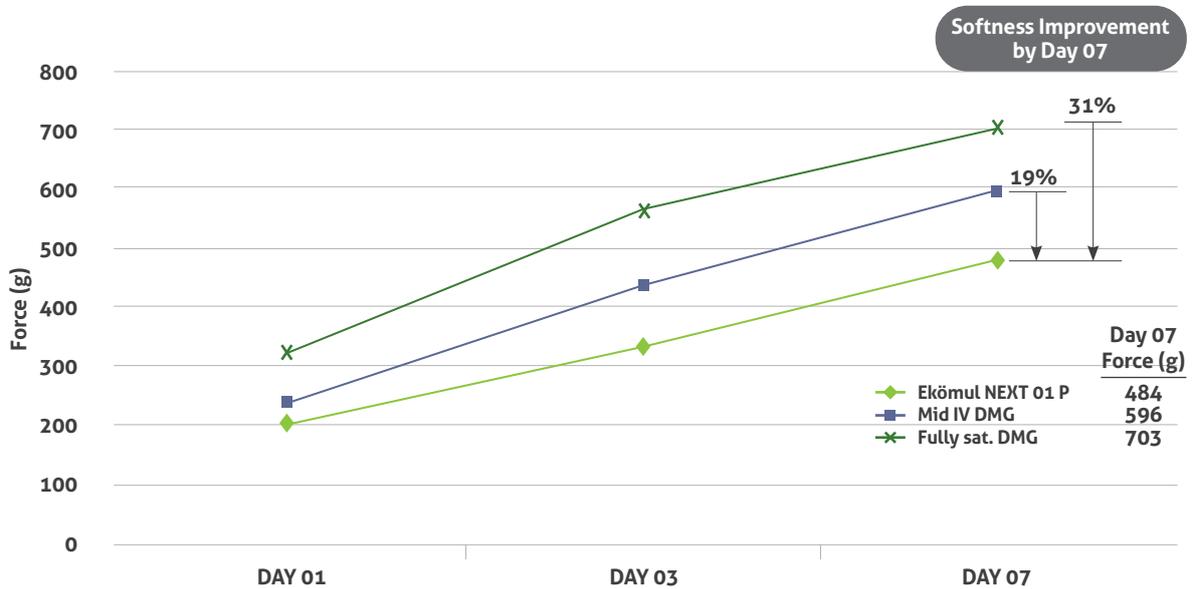
Winner of
 Frost & Sullivan's
 2018 Best Practices Award
 Food Ingredients
 Company of the Year

Exceptional Crumb Softening

- Ultra-soft crumb performance beyond existing distilled monoglycerides solutions
- Markedly significant softness on Day 7 compared to fully saturated distilled monoglycerides – **31% softer when Ekömul NEXT 01 P is used**
- Major improvement on softness on Day 7 compared to mid-IV distilled monoglycerides – **19% softer when Ekömul NEXT 01 P is used**

Baking Test

Exceptional Crumb Softening Effect



Note:

1. Test conducted with white sandwich bread recipe added with 0.3% emulsifiers
2. Test method: AACC Standard Method 74-09 Bread Firmness Test; using Texture Analyser TA.XT PLUS
3. The higher the reading, the firmer the bread

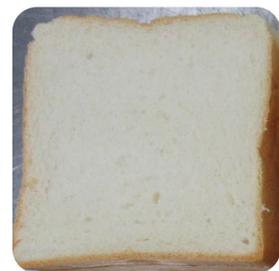
Crumb Structure Evaluations



Ekömul NEXT 01 P



Mid IV DMG

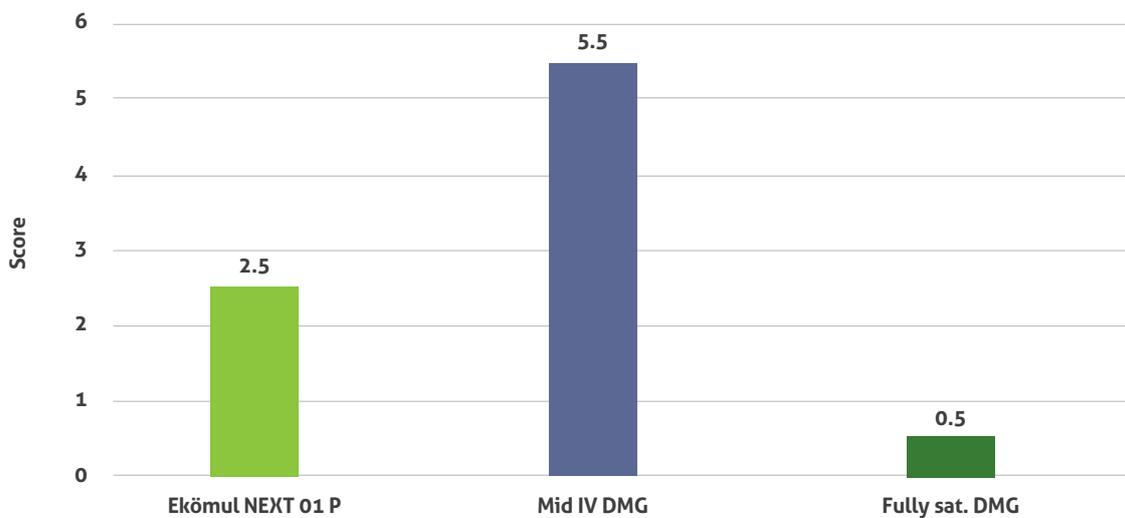


Fully Saturated DMG

Good Powder Resiliency

Good powder resiliency against supply chain and handling challenges.

Powder Properties Hand Rub Test



**The smaller the number, the better the powder quality*



Ekömul NEXT 01 P

Smeared onto palm indicating
free flowing properties



Mid IV DMG

Stick together
forming aggregates



Compaction Test

Procedures:

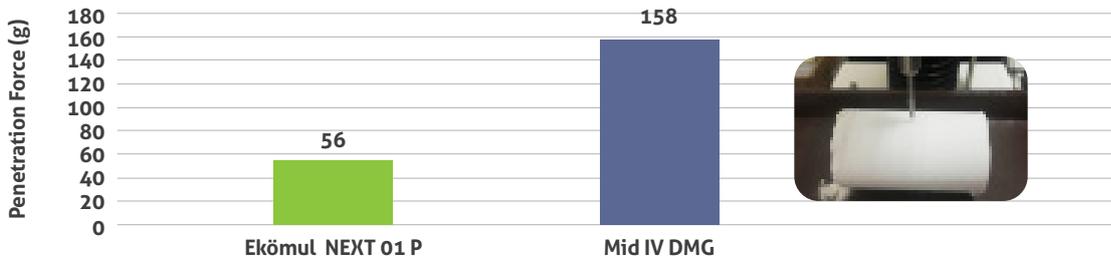
- 100ml sample into cylinder and compressed with 1.2kg piston
- Store into 30°C incubator for 16 hours
- Extrude the samples and evaluate



Overcoming Supply Chain & Handling Challenges

Good powder flowability imparts excellent baking properties and product stability

Penetration Test



Note:

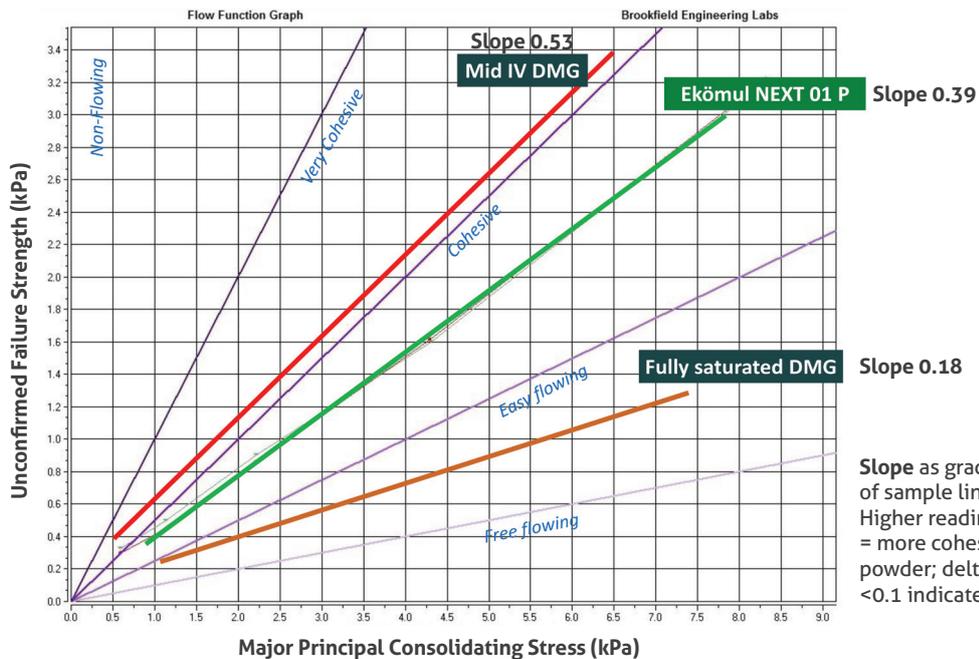
1. Test conducted using Texture Analyser TA.XT PLUS, measuring the force required to penetrate 10mm of the sample
2. The higher the reading, the harder the sample

- Index of product hardness after compaction at 30°C for 16 hours
- Measures the force required to achieve penetration depth of 10mm into the sample
 - The higher the force, the harder the product

Powder Flow Test

Flow Function Test

- Characterises the relative cohesive strengths of powders
- Tests the flow behaviour of powders at low and high consolidation strengths



Slope as gradient of sample line. Higher reading = more cohesive powder; delta of <math><0.1</math> indicates

HEADQUARTERS

Futura Ingredients | Mewah Building, 5 International Business Park, 01-00 Singapore 609914
 o +65 6829 5115 f +65 67200158 w futuraingredients.com
 e enterpriseservices@futuraingredients.com

MANUFACTURING SITE

Ecolex Sdn Bhd | Lot 11 Section 5 Fasa 2B, Jalan Sungai Pinang 4/2, Pulau Indah Industrial Park, Pulau Indah 42920 Selangor, Malaysia
 o +603 3258 3000
 f +603 3258 3160