

PRODUCT APPLICATION GUIDE

EKÖLITE PGPR 90 FOR PAN RELEASE AGENTS

Tin Grease emulsion used for spreading in bread and cake cake tin. It is a combination of vegetable oil, emulsifier and water formulated specially, which makes bread load/cake can be released easily and minimises the carbon deposit.

Tin Grease is classified under non-food applications and is regulated under other legislations as the needed dosage of PGPR is higher. For tin grease formulations Ekölite PGPR 90 is the most suitable emulsifier as it:

- Forms very stable emulsions even when water content is as high as 60%,
- Helps retain stable W/O emulsion at high temperatures
- Gives low viscous type emulsions although used at high level (1.5 3.0%)

REFERENCE FORMULATION

Ingredients	Dosage (%)
Packer Olein (IV 56 - 57.5)	40.80
Water	55.00
Ekölite PGPR 90	4.00
Ekömul MG 95 HP	0.20
TOTAL	100.0

PROCEDURE

- 1. Weigh emulsifier and oil separately
- Heat the oil to 55 60°C and maintain temperature for 15 minutes with intermittent stirring
- Melt 1 part of emulsifier to 5 part of the heated oil at 55 - 60°C, or 5 - 10°C above the emulsifier melting point
- 4. Add the emulsifier and oil into the remaining oil sample
- 5. Weigh water phase ingredients into a separate beaker, and warm it to 50°C
- Mix the oil phase ingredients at 3,500 rpm using a high shear mixer Note: Mixing speed needs to be adjusted based on equipment set up to avoid bubble incorporation
- 7. Add water gradually using plastic pipette, with mixing continues at 3,500 rpm
- 8. Once addition of water phase ingredients is completed, continue to mix for 30 minutes
- 9. Transfer into desired container for storage and use

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Emulsifier & Recommended Dosage

Ekölite PGPR 90 2 – 4%

Ekömul MG 95 HP 0.2 – 0.5%

Functionality

Impart emulsion stability