

ルナフロー RA-200

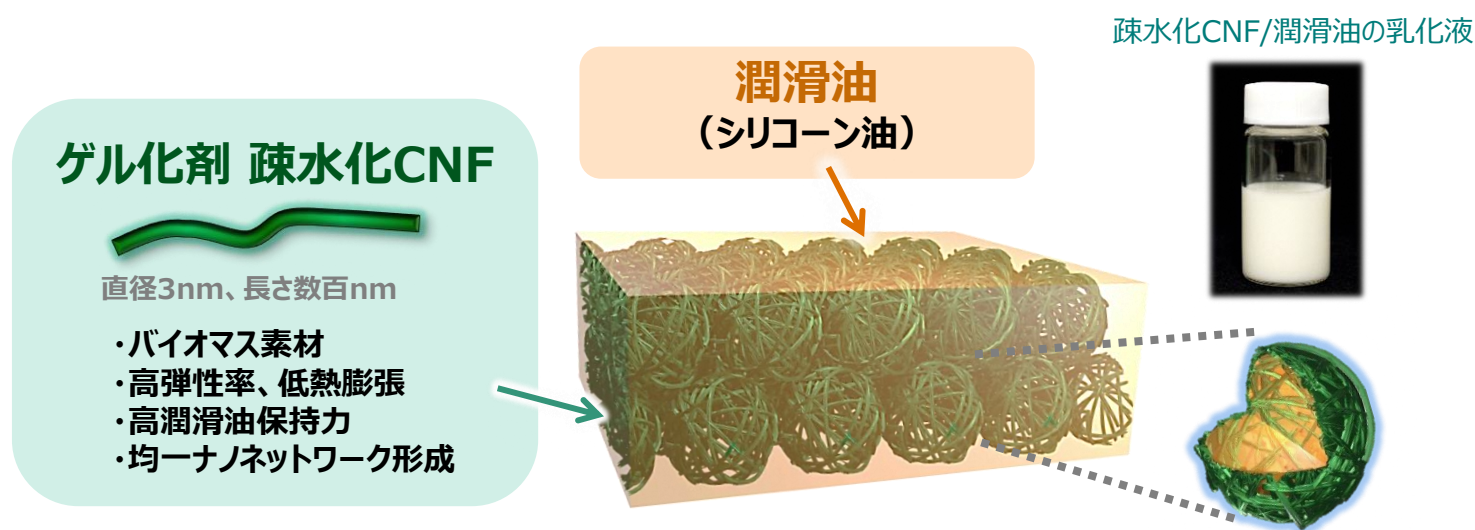
CNFを活用したフッ素フリーの水系離型剤

kaō

製品特長

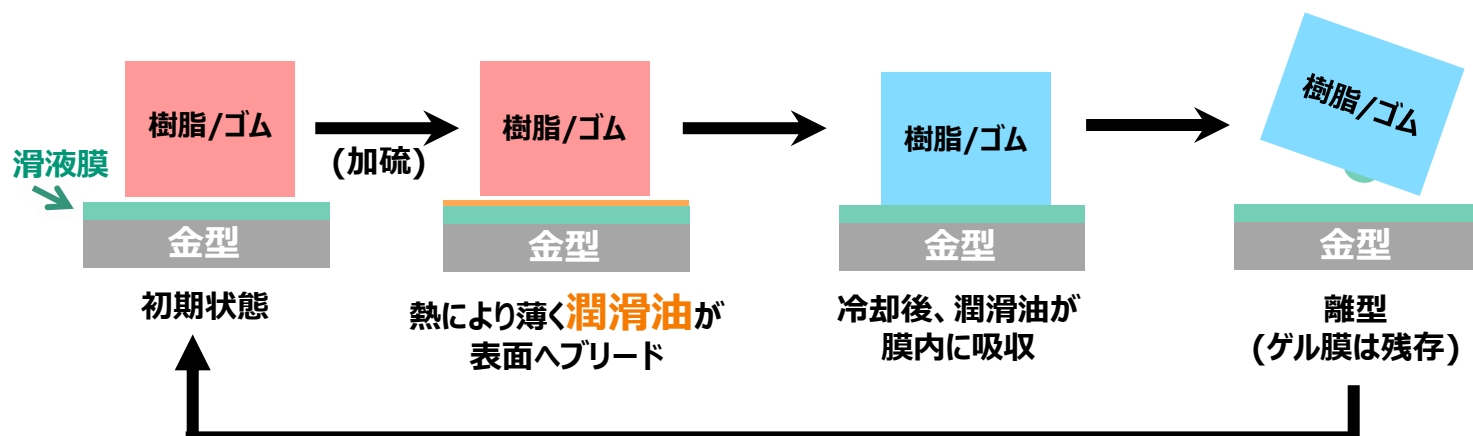
- サステナブル素材CNF (Cellulose Nano Fiber) をゲル化剤として活用したシリコン系離型剤
- フッ素フリーでVOCが発生しない完全水系離型剤
- 既存シリコン/フッ素系離型剤と比較して、様々な樹脂/ゴムに対して優れた離型性を発現
- 繰り返し使用しても効果が持続するため、成形工程の生産性が向上

花王の滑液技術



疎水化CNFによる球状構造に潤滑油が保持された**滑液膜**が優れた離型性を発現

高耐久離型性の発現メカニズム



- 高温時には**膜から潤滑油がブリード**し、ゴムの接着を防止
- 室温時には**潤滑油が膜内に再び吸収され**、金型表面に潤滑油を保持できる
- 離型後も**金型側には滑液膜が残存**し、繰り返し性能を発現

一般的な離型剤との比較

離型剤	Blank	市販離型剤①	市販離型剤②	市販離型剤③	ルナフロー
剤/タイプ	-	シリコン系	フッ素系		シリコン系
	-	水系	水系	水系	水系
離型性（1回目）	×	×	△	○	◎
離型性（2回目） ※剤を再塗布せず再び離型	-	-	-	×	◎ 10回目も◎

※SUSバットに非晶性溶融ポリエステル樹脂（約200℃）を注入し、冷却後反転させて離型性を評価



シリコン系離型剤、フッ素系離型剤と比較して**優れた離型性、耐久性**を発現

製品性状

製品形態	エマルジョン
有効分濃度	約10%
粘度	数100mPa・s

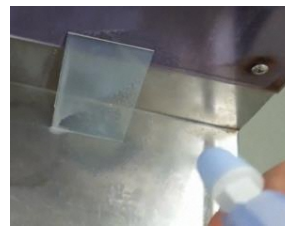
製品外観



推奨塗装方法

塗装方法	推奨乾燥時間
エアスプレー	1分～
トリガースプレー	10分～
布含侵	10分～

スプレー塗布



乾燥後



乾燥

室温10分

＜対象基板例＞

金属、プラスチック、ガラス、セラミック 等

荷姿

ルナフロー RA-200 18kg ポリ缶

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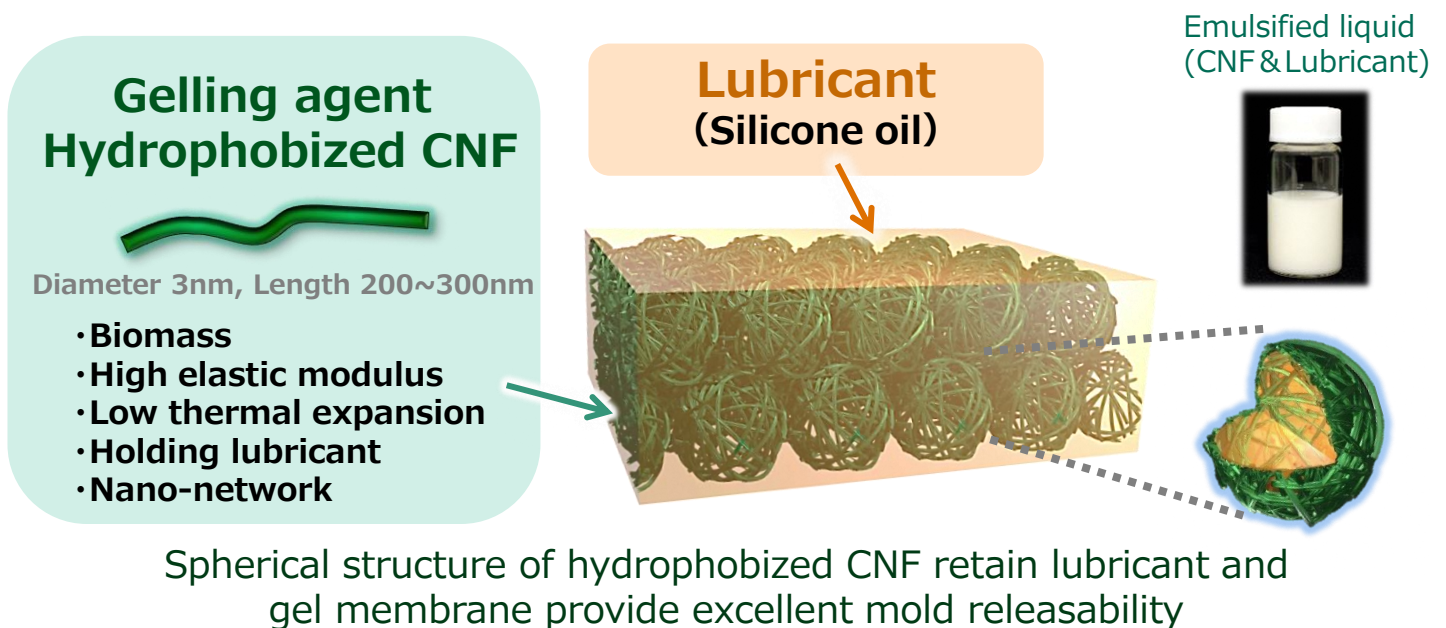
LUNAFLOW RA-200 Kao

Fluorine-free water-based release agent utilizing CNF

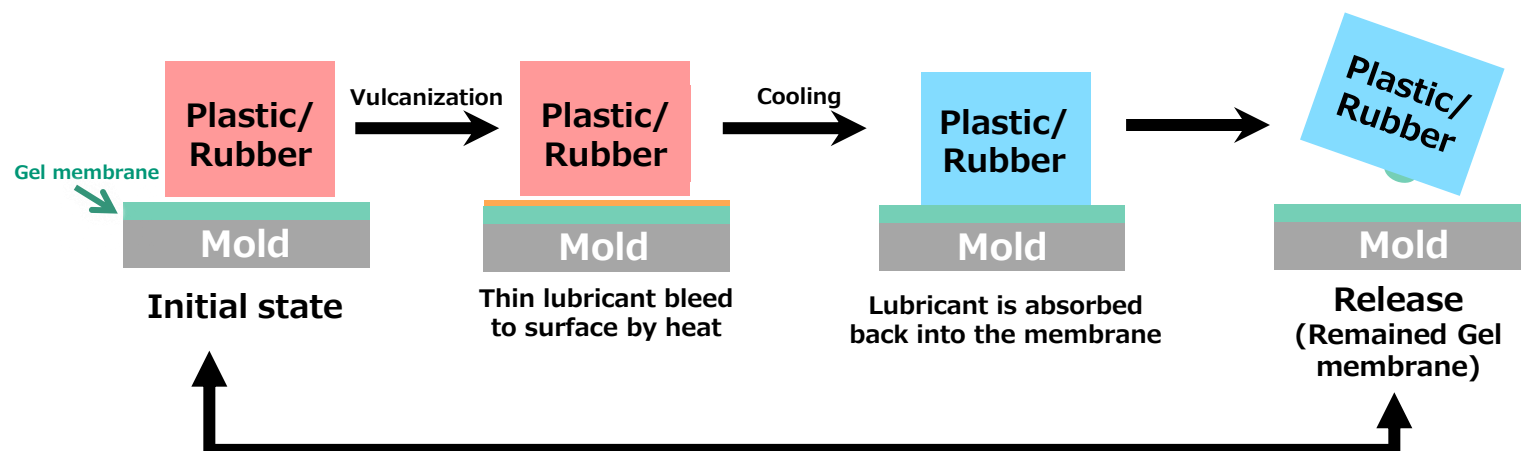
Product features

- Silicone-based release agent utilizing CNF (*Cellulose Nano Fiber*) as a gelling agent
- Completely water-based agent, not generate VOCs without fluorine
- Better release performance compared with existing silicone/fluorine agents
- Lasting effects over repeated use increase productivity in the molding process

Kao's technology



Mechanism of highly durable mold releasability



- At high temperatures, lubricant bleed from the membrane and prevent rubber adhesion
- At room temperature, lubricating is absorbed back into the membrane and can retain the lubricant on the mold surface.
- After mold release, gel membrane remain on the mold side and be repeatable.

Comparison with general mold release agents

Release agent	Blank	Conventional product (1)	Conventional product (2)	Conventional product (3)	LUNAFLOW
Agent/Type	-	Silicone-based	Fluorine-based		Silicone-based
	-	Water based	Water based	Water based	Water based
Releasability (1st)	×	×	△	○	◎
Releasability (1st) ※Without recoating the agent	-	-	-	×	◎ 10 times◎

※ Amorphous polyester resin (200°C) was poured into a SUS bat, cooled, and inverted to evaluate mold release performance.



Better **mold release performance** and **durability** compared with silicone-based release agents and fluorine-based release agents

Product properties

Product appearance	Emulsion
Effective concentration	10%
Viscosity	100mPa·s

Product appearance



Recommended coating method

Coating method	Recommended drying time
Air spray	1 min.
Trigger spray	10 min.
Cloth coat	10 min.

Spray coating



After drying



Drying

10min.

<Example of Substrate>

Metal, plastic, glass, ceramic, etc.

Packaging

LUNAFLOW RA-200 18kg plastic container

FOR YOUR PROTECTION

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