



FINE ORGANICS



FinaFog®

Antifogging additives for polymer films & sheets

FinaFog additives have been specially formulated to offer excellent antifogging performance in polymer films/sheets. Major applications of FinaFog antifogging additives include agricultural & food packaging films. Typically, the process of 'fogging' involves formation of numerous small and discrete water droplets due to the temperature difference between interior and exterior of an enclosed system such as packaged food items or green houses. Therefore, the 'fogging' process decreases light transmission through polymer films resulting in poor visibility in case of packaged food. Deterioration of visual appeal caused by 'fogging' and speculated potential adverse effect on packaged product quality are some of the most crucial concerns of the consumers, which may result in product package rejection.

Further, the phenomenon of fogging is not desirable in the agricultural films as it may decrease the growth of plants by obstructing the sunlight reaching to plants. In addition, excess dripping water as well as sunrays converging on leaf surface may cause severe damage to the plant leaves.

FinaFog antifogs can provide excellent visual & functional properties to the plastic films; thereby, help to effectively resolve these issues in agricultural & food packaging films.



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FinaFog Additives Applications

- Food packaging films
- Agricultural films

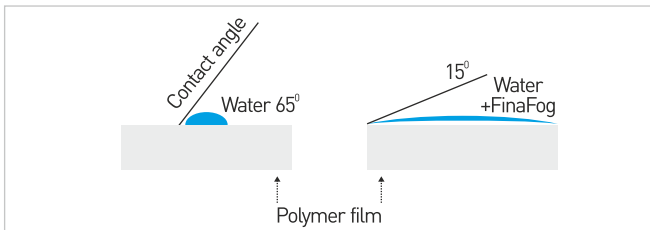
Key features

- Effective cold and hot fogging properties
- Improved visibility through the films
- No effect on film clarity at optimum loading
- Enhanced customer appeal/acceptance
- Protection of crops in greenhouse

Understanding

FinaFog antifogging additives encourage a uniform water layer formation instead of discrete droplets by tuning the surface wetting properties of the polymer film via surface migration.

FinaFog antifog migrates on the polymer surface, which makes the surface more hydrophilic; therefore, contact angle decreases spreading the water droplet into a thin continuous film of water.



Without FinaFog



With FinaFog 500

Excellent antifogging performance in PE films



Without FinaFog



With FinaFog 700

Representative performance in agricultural film (PE)

FinFog range

FinaFog Additives	Polymer System	Physical Form
FinaFog 500	PE	Viscous Liquid
FinaFog 700 (Agricultural Films)	PE/EVA	Powder
FinaFog PP 200	PP	Powder
FinaFog PP 300	PP	Powder
FinaFog 1014 ^(external)	PET/PC/PP	Liquid
FinaFog 400	PVC	Liquid
FinaFog 410 (Mushroom Packaging)	PVC	Liquid
FinaFog 406*	PVC	Liquid
FinaFog 400P**	PVC	Liquid

*E2 **E4

Recommended dosage: 0.75 to 3%

(Based on the service-life required and other performance factors)

Method of use:

- Masterbatch route while using internally
- Externally used by coating on film/ sheet surface

Performance parameters

Some of the major performance parameters influencing the antifogging action imparted by the additives are indicated below.

Performance parameters	How does it affect
Service life duration	Span for which the antifogging action is required varies with end-applications
Dosage levels	Adequate dosage levels ensure effective antifogging performance
Polymer type	Crystallinity, polarity of the polymer affect the migration of additives on the polymer surface
External conditions	Humidity, temperature variations determine the service life of the additives
Type & structure of films/ sheets	Effective performance can be achieved when the additive is incorporated in appropriate layer at sufficient dosage
Regulatory approvals	Suitable to the end application requirements
Non-phytotoxicity properties	Additive should not deteriorate the soil quality.

For Further technical assistance, Please contact our Technical Services Department | Email : info@fineorganics.com

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