

EINAR® PLANT-BASED, FOOD GRADE POLYMER ADDITIVES

Anti-fog and anti-stat coating solutions



PRODUCT NAME

Einar® 624

APPLICATION

Anti-fog and anti-stat coating solution for PET, PS, and PVC

Palsgaard®

The plant-based, food-grade anti-fog and anti-stat coating solution when internal additives do not suffice

Einar® 624 is an ideal option for PET and BOPP manufacturers seeking a food-grade and plant-based coating solution that is on par with or outperforms traditional alternatives in both anti-fog and anti-static performance.

Drawing on our extensive expertise in internal anti-fog and anti-static additives, **Einar® 624** provides effective protection against static buildup and fogging for situations when migratory alternatives are unavailable or fail to meet performance requirements.

KEY FEATURES

- ✓ Efficient anti-fog and anti-stat performance at low coating concentrations
- ✓ Ideal for making water based coating solutions
- ✓ A specialised additive based on polyglycerol esters of 100% vegetable origin
- ✓ No amine, amide and PEG chemistry
- ✓ Thermally stable and low volatility
- ✓ FDA and EU approved for food-contact applications

KEY BENEFITS

- ✓ Prevents fogging from chilled and hot packaged food and keeps packaging transparent during storage
- ✓ Helps to reduce food waste as products will stay fresh for longer and continue to appeal to consumers
- ✓ Enables clean and dust-free packaging in production and final application
- ✓ Prevents electrical discharge during production and handling of plastic packaging
- ✓ Suitable for a wide range of polymers such as PET, PS and PVC
- ✓ Consultancy and technical evaluations available from our applications team

Einar® 624 anti-fog coating performance

Einar® 624 is a concentrated additive ideally suited for water-based, coating solutions. After coating and drying, anti-fog performance can be achieved with coating concentrations down to 25 mg/m². For a robust and lasting effect, surface concentrations of 50 - 150 mg/m² are generally recommended.

Einar® 624 delivers efficient anti-fog performance in demanding applications such as oriented and stretched films.

Einar® 624 anti-static coating performance

Einar® 624 will perform equally well as an anti-static coating additive. Uniquely efficient, it will work at coating concentrations down to 10 mg/m². For a robust, lasting effect, surface concentrations of 25-100 mg/m² are generally recommended.

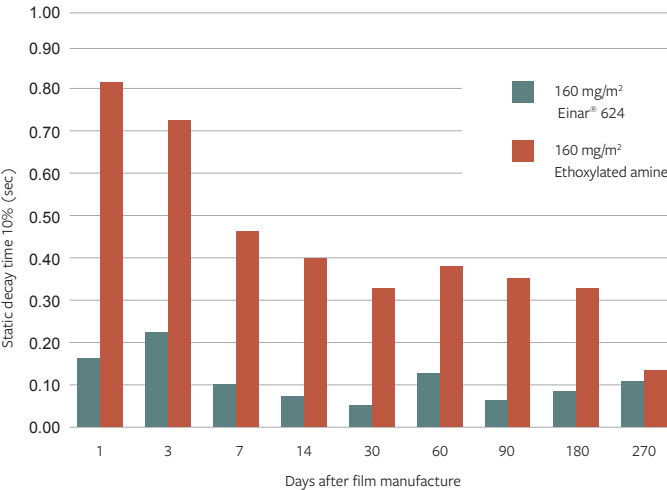
Einar® 624 delivers efficient performance as an anti-static coating agent in demanding applications such as oriented and stretched films.

COLD FOG TEST OF EINAR® 624 ON PET FILM
Measured at 4°C (120 mg/m²)

1 min	E	E	E	E	E	E
10 min	E	E	E	E	E	E
30 min	E	E	E	D	E	E
60 min	E	D	E	D	E	E
180 min	D	D	D	D	E	E
	1 day	7 days	1 month	3 months	6 months	12 months

Days after film manufacture

ANTI-STATIC PERFORMANCE ON PET FILM
Measured at 50% RH



Einar® 624 product details

Physical/chemical properties:	polyglycerol ester	
	acid value, max.	3 mg KOH/g
	saponification value	110-130 mg KOH/g
	melting point approx.	15°C
	colour	light yellow
	form at 25°C	liquid paste
Storage conditions:	Should be stored in a cool and dry place in tightly closed packaging	
Packaging:	180 kg net in steel drums 25 kg/55,1 lb HDPE cans	
Product form:	Einar® 624 comes in liquid paste form	
Shelf-life:	Min. 12 months from date of production	

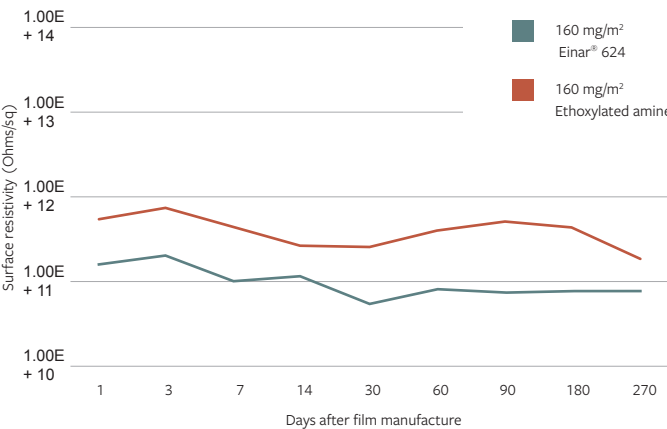
Guidelines for use

Einar® 624 is a concentrated anti-fog and anti-stat coating which will need to be diluted to 1-10% in water. The dilution is made by heating **Einar® 624** and water to 60°C in separate containers. The liquid **Einar® 624** is then added to the warm water while stirring until a uniform suspension is formed.

The resulting suspension is stable at ambient temperature and can be applied to the surface of the polymer by spray or roll. This is followed by drying or heating to remove the water, leaving behind an active layer of anti-fog and anti-stat additive on the surface.

Excellent	E
Acceptable	D
Better	C
Poor	B
Very poor	A

ANTI-STATIC PERFORMANCE ON PET FILM
Measured at 50% RH



Plant-based, food-grade solutions for the polymer industry

Health and Safety

Einar® polymer additives are safe to use, identified as non-toxic and not expected to cause irritation to the skin, eyes or lungs. They are made from renewable, plant-based material under hygienic conditions. SDS is available on request.

Legal status and other regulatory information

Einar® 624

- Complies with the purity requirements of food additives (FAO, WHO, JECFA)
- Food contact compliance for EU, USA, Mercosur, China
Detailed information available on request