

# Additive solutions for PVC



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**PRODUCT NAME**

Einar® 601

Einar® 211

Einar® 201 and Einar® 303

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**APPLICATION**

Anti-stat for PVC

Anti-fog for PVC

Processing aids and mould release  
agents for PVC

# The plant-based, food-grade solutions for PVC

PVC is a versatile thermoplastic polymer with a very wide range of potential uses, each calling for a dedicated set of additives to help achieve the desired performance.

With **Einar**® polymer additives you can add a renewable component to your PVC products without affecting costs or quality.

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## KEY FEATURES

- ✓ Highly effective replacement for anti-static ethoxylated amines and conventional anti-fog chemistries such as glycerol monooleate or sorbitan esters
- ✓ Optimised formulations of customised polyglycerol esters and distilled mono-glycerides with selected fatty acid profiles, made from vegetable oils
- ✓ Internal anti-static and anti-fog additives for PVC compounds
- ✓ Efficient performers in PVC applications
- ✓ Worldwide regulatory approval for food-contact applications

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## KEY BENEFITS

- ✓ Highly efficient migratory anti-static and anti-fogging protection
- ✓ Very good anti-fog performance in cling film
- ✓ Mould release and lubrication
- ✓ Can be used for various PVC grades by adjusting concentration
- ✓ Consultancy available from our applications team

**Einar® 601 for anti-stat applications**

The use of efficient anti-stats in PVC is important in a range of different applications as both plasticized and rigid PVC will need anti-stat protection for various uses. **Einar® 601** offers excellent anti-stat protection in PVC where it has the right migratory profile to build anti-stat protection on the polymer surface. It has shown very good results in both rigid PVC as well as in combination with plasticizers.

Recommended loading levels are 0.5 - 1.0% for most applications and may be higher in certain highly plasticized formulations.

**Einar® 601 product details**

Physical/chemical properties:	polyglycerol ester free fatty acids, max. 3% saponification value 165-180 mgKOH/g colour off-white form at 25°C paste
Storage conditions:	Should be stored in a cool and dry place in tightly closed packaging
Packaging:	180 kg/396.8 lb net in steel drum
Product form:	Einar® 601 comes in paste form
Total shelf-life:	Min. 24 months

**Einar® 211 for anti-fog applications**

**Einar® 211** is an excellent performer for PVC cling film and works particularly well in cling film applications where the objective is to obtain a good and reliable performance in either a cold fog or a hot fog application. **Einar® 211** is a fast acting anti-fog and will produce clear and transparent film for an extended period of time. The recommended loading level of **Einar® 211** is 0.5 - 1.0% for cold fog applications and for hot fog the recommended loading level is 0.3 - 0.6%.

**Einar® 211 product details**

Physical/chemical properties:	monoglycerides, min. 90% free fatty acids, max. 1.5% free glycerol max. 1% colour off-white form at 25°C paste
Storage conditions:	Should be stored in a cool and dry place in tightly closed packaging
Packaging:	180 kg steel drum
Product form:	Einar® 211 comes in paste form
Total shelf-life:	Min. 12 months

**Guidelines for use**

**Einar® 601** and **Einar® 211** can be easily incorporated into a PVC compound and can be mixed well with other liquid products in a plastisized PVC formulation.

**Einar® processing aids and mould release agents**

**Einar® 201** and **Einar® 303** will offer good lubrication properties for a range of different extrusion applications and they are primarily internal lubricants. Typical loading levels are 0.3 - 1.0%.

**Einar® 201** is also a very good mould release for many PVC injection moulding applications and is typically used at loading levels of 0.3 - 0.6%.

Both products contain glycerol monostearate made from vegetable oils and are available in pellets and in powder form, with 24 months of shelf-life. The products can be supplied in 20 kg paper bags with a PE inner bag or in 500 kg anti-static PE bigbags.

**Guidelines for use**

**Einar® 201** and **Einar® 303** can be incorporated into the PVC compound or by direct addition of the neat additive to the injection moulding or extrusion process of plastic articles and packaging.

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

## Health and Safety

**Einar®** polymer additives are identified as non-toxic and is 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® 601, Einar® 211, Einar® 201, and Einar® 303**

- Food contact compliance for EU, USA, Mercosur, China  
Detailed information available on request