

# Anti-static additive for impact copolymer polypropylene (PP)



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**PRODUCT NAME**

Einar® 401

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**APPLICATION**

Anti-stat for impact copolymer PP

# The plant-based, food-grade solution for impact copolymer PP

**Einar® 401** is a superior plant-based, food-grade anti-static additive custom-designed for use in impact copolymer polypropylene. This long-lasting anti-static additive is the perfect alternative to ethoxylated amine and amides as it is able to match or exceed these while being safe enough to eat.

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## KEY FEATURES

- ✓ Highly effective replacement for anti-static ethoxylated amines and amides
- ✓ An optimised blend of mono- and diglycerides with selected fatty acid profiles made from vegetable oils
- ✓ An internal anti-static additive for additive masterbatches based on polypropylene
- ✓ Worldwide regulatory approval for food-contact applications
- ✓ Available in pellet form
- ✓ Produced in CO<sub>2</sub>-neutral factories

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## KEY BENEFITS

- ✓ Prevents dust attraction to plastic articles
- ✓ Prevents electrical discharge during filling and loading of plastic packaging
- ✓ Can be used for other polypropylene grades by adjusting the dosage level
- ✓ No worries when used in food-grade applications
- ✓ No adverse effects on mechanical, optical, and barrier properties
- ✓ Enables clean and dust-free polypropylene packaging in production and final application
- ✓ Consultancy and technical evaluations available from our applications team



## Einar® 401 for PP impact copolymer anti-stat applications

**Einar® 401** offers unmatched anti-stat performance in impact copolymer PP injection moulding applications. It's the ideal candidate to ensure clean, dust-free and attractive packaging across a broad range of applications, such as thin-walled containers used for yogurt and margarine, or small or large buckets for both food and non-food storage. The anti-stat effect is both short and long term and will easily exceed one year, also at low humidity conditions.

Recommended loading levels for impact copolymers are 0.5 - 1.0% for most applications but higher concentrations may be required in demanding thin-walled packaging.

**Einar® 401** will provide necessary mould release and denesting properties when incorporated in an impact copolymer at the recommended levels for good anti-stat performance.

**Einar® 401** comes in pellet form, ideally suited for mixing with the polymer material. The pellet form ensures easier dosing and reduced stickiness in feeding and transport equipment.

## Product details

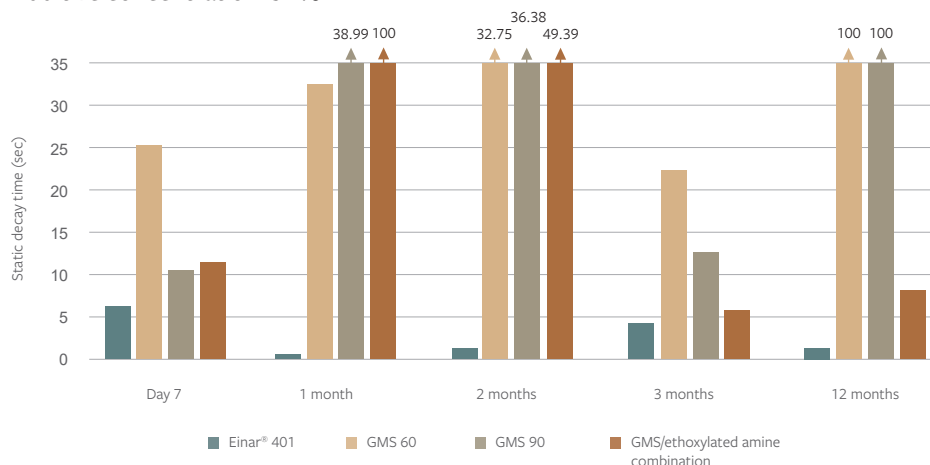
Physical/chemical properties:	monoglycerides, min.	90%
	free fatty acids, max.	1.5%
	free glycerol, max.	1%
	melting point, approx.	60°C
	colour	white
	form at 25°C	pellets
Storage conditions:	Should be stored in a cool and dry place in tightly closed packaging	
Packaging:	20 kg multiply paper bag with an inner polyethylene bag (35 bags per pallet) or 500 kg anti-static polyethylene big-bag	
Product form:	Einar® 401 comes in pellet form	
Total shelf-life:	min. 24 months	

## Guidelines for use

The product should be incorporated into the polymer matrix via a masterbatch or by direct addition at the resin manufacturer.

## ANTI-STAT PERFORMANCE IN IMPACT COPOLYMER PP

Additive concentration is 1%



Einar® 401 has excellent long term anti-stat performance in impact copolymer PP

# Sustainable solutions for the polymers industry

## Health and Safety

**Einar®** is identified as non-toxic and is not expected to cause irritation to the skin, eyes or lungs. Detailed MSDS is available on request.

## Legal status and other regulatory information

### **Einar® 401**

- is a dual use additive for use in food (E471) and polymers
- complies with the purity requirements of FAO/WHO regarding food additives (JECFA)
- is manufactured in accordance with Danish- and EU regulations and under hygienic conditions
- may be used in plastic materials and articles intended to come into contact with foodstuffs in accordance with Regulation (EC) No. 10/2011 on plastic materials and articles intended to come into contact with food
- is GRAS according to FDA 21 CFR 184.1505, and may in accordance with FDA 21 CFR 174.5 be used as components of articles intended for contact with food
- Roundtable of Sustainable Palm Oil (RSPO) certificate available on request with order
- Kosher & Halal certificates and REACH registration available on request

**To find out more or to order samples of Einar® 401, visit [polymers.palsgaard.com](https://polymers.palsgaard.com) or contact us via [polymers@palsgaard.com](mailto:polymers@palsgaard.com)**

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