

3M Performance Additive

EIN – 25003 - Polymer Processing Additive

Features and Benefits

- * Broadens extrusion processing capabilities of Polyolefin resins
- * Reduces or eliminates melt fracture
- * Reduces or eliminates die build-up
- * Lowers apparent melt viscosity
- * Free-flowing fluoropolymer based processing aid
- * Ideal for use in Low MFI LLDPE, HDPE & high molecular weight HDPE resins
- * For use at low levels
- * Can offer performance and cost advantages

Typical Properties (Data not for specification purposes)

Form	Granular
Colour	White to Off White
Active Ingredients	97%
Inorganic Additives	3%
Typical Use Levels	100 - 1000 ppm
Particle Size	Approximately 10 mesh

Introduction

EIN - 25003 is a free-flowing fluoropoly based processing additive that is designed for use at very low levels to improve processing of thermoplastics. At the very low use levels (typically 100 – 800 ppm) necessary to improve processing, it does not alter or detract from the good physical properties associated with high strength plastics.

EIN - 25003 can offer performance and cost advantages. It exhibits exceptional commercial utility in low melt index film grade linear low density polyethylene(LLDPE), high density polyethylene (HDPE) and HMHDPE. It is especially effective in polyolefin resins containing talc and silica-based antiblocking agents, titanium dioxide based pigments, and other inorganic additives. It can also be used at low levels to reduce extruder die build-up when processing LDPE, EVA and other polyolefin resins.

EIN - 25003 lowers apparent melt viscosity and permits processors to use high strength resins which otherwise could not be processed on available equipment. Now with the aid of EIN - 25003, fabricators can produce films, of improved strength and quality. As polymer processing additive EIN - 25003 can reduce or eliminates melt fracture and can reduce extruder torque. Through optimisation of the extrusion process, the use of EIN - 25003 may also allow an increase in output and yield films with enhanced & bi-directional physical properties and improved clarity & gloss.

Incorporation procedure

To be effective, EIN - 25003 must be melt blended into the host resin at any of the following stages prior to conversion into extruded products.

- Resin Producer
 - Direct addition (See Dynamar™ PPAs “Direct Addition During Resin Manufacture Guidelines”)
 - Use a concentrate containing EIN - 25003 and let down at appropriate level
- Concentrate Producer
 - See Dynamar™ PPAs “Concentrate Preparation Guidelines”
- End User
 - Source resin containing EIN - 25003 from a resin producer
 - Source a concentrate containing 2-6% EIN - 25003 and let down at appropriate level

EIN - 25003



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Getting Started

When processing resins containing EIN - 25003, the benefits may not be noticed immediately. Once enough resin has been processed to coat the surface of the extruder die, effects such as gradual elimination of melt fracture and stable die pressure will become increasingly apparent. This lag time can be reduced significantly by thoroughly cleaning then either preconditioning the extrusion equipment with a concentrate of EIN - 25003 or starting out with higher concentration of EIN - 25003. See the 3M India PPAs Evaluation Guidelines for more details on running 3M, Polymer Processing Additives.

Storage and Handling

EIN - 25003 should be stored in a clean dry environment at temperatures below 27°C (80°F) to prevent agglomeration and ensure long-term storage. Please refer to the Material Safety Data Sheet for additional information about handling.

Safety/Toxicology

To avoid potential hazards (including the evolution of toxic vapours) associated with processing this material, please read and follow the information provided in these documents available to you through your 3M India sales representative.

- Material Safety Data Sheet
- 3M India PPAs concentrate Preparation Guidelines
- 3M India PPAs Direct Addition During Resin Manufacture
- 3M India PPAs evaluation Guidelines

You should also read and follow all the directions from suppliers of other ingredients that you intend to use in conjunction with this 3M India PPA material.

Technical Information and Test Data

Technical Information, test data, and advice provided by 3M India personnel are based on information and tests we believe are reliable and are intended for persons with knowledge and technical skills sufficient to analyze test types and conditions, and to handle and use raw polymers and related compounding ingredients. No license under any 3M India or third party intellectual rights is granted or implied by virtue of this information.

Packing Details:

EIN - 25003, Polymer Processing Additives is available in 20kg pack size.

Important Notice:

Because the conditions of product use are outside 3M India's control and vary widely, user must evaluate and determine whether a 3M India product will be suitable for user's intended application before using it. **The following is made in the lieu of all express and implied warranties (including warranties of merchantability and fitness for a particular purpose): If a 3M India product is proved to be defective, 3M India's only obligation, and user's only remedy, will be, at 3M India's option, to replace the quantity of product shown to be defective when user received it or to refund user's purchase price. In no event will 3M India be liable for any direct, indirect, special, incidental, or consequential loss or damage, regardless of legal theory, such a breach of warranty or contract, negligence, or strict liability.**

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