

# 3M™ Dynamar™ Polymer Processing Additive FX 5912

## Features and Benefits

- Process targets: Extrusion processing of wire and cable, fiber spinning, and certain calendering operations
- Broadens extrusion processing capabilities of certain types of polyolefin resins
- Excellent thermal stability
- Effective as a process aid over a broad process temperature range
- Free-flowing granular product form
- 100% active
- Reduces/eliminates die build-up
- Lowers apparent melt viscosity
- For use at very low levels
- Can offer performance and cost advantages

**Note:** Data in this document are not for specification purposes.

## Typical Properties

Property	
Form	Free-flowing Granular
Color	Clear to Off-White
Active Ingredients	100%
Melting Point	110 to 126°C
Melt Flow Index (265°C, 5 kg)	15.0 to 25.0 g/10 min.
Specific Gravity	1.90 to 1.96 g/cm <sup>3</sup>
Particle Size	98% less than 2400 Microns

## Product Description

3M™ Dynamar™ Polymer Processing Additive FX 5912 is a free-flowing fluorothermoplastic processing aid (PPA) that is designed for use at very low levels to improve the processing of thermoplastics. Typical use levels of 200 to 1000 ppm have demonstrated benefits in specialized extrusion, and calendering processes.

Dynamar FX 5912 may offer performance and cost advantages over comparable loadings of other processing additives. It is particularly useful at low levels to reduce die pressure, and reduce extruder die build-up, and promote release from calendering rolls.

FX 5912 lowers apparent melt viscosity. As a processing aid FX 5912 reduces or eliminates melt fracture and can reduce extruder torque. Through optimization of the extrusion process, the use of FX 5912 may also allow an increase in output in extrusion processing. Because of its proven ability in reducing die build-up and its continuous “cleaning” function, equipment maintenance may be minimized.

## Safety/Toxicology

To be effective, FX 5912 must be melt blended into the host resin prior to conversion into extruded products.

Recommended incorporation procedures:

- Resin Producer
  - Direct addition  
(See Dynamar™ PPA PPA “Direct Addition During Resin Manufacture Guidelines”)
  - Use a concentrate containing 2-50% FX 5912 and let down at appropriate level
- Concentrate Producer
  - See Dynamar™ PPA “Concentrate Preparation Guidelines”
- End User
  - Source resin containing FX 5912 from a resin producer
  - Source a concentrate containing 2-50% FX 5912 and let down at appropriate level

## Storage and Handling

Storage life can be affected by storage conditions. Even though 3M™ Dynamar™ FX 5912 is hydrophobic it should be stored in a clean dry environment. Please refer to the Material Safety Data Sheet for details on handling.

## Safety/Toxicology

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

- Material Safety Data Sheet
- Dynamar PPAs Concentrate Preparation Guidelines
- Dynamar PPAs Direct Addition During Resin Manufacture
- Dynamar PPAs Evaluation Guidelines

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

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