	Novin Baspar Sazeh Co.	**2017**
	NovinAid-FPA410	**Additive Masterbatch**

Datasheet for Polymer Processing Aid Masterbatch, NovinAid-FPA410

Introduction

This group of masterbatches with trade name NovinAid® provide processing aid for a smoother production and a better outcome. Advantages of using these masterbatches include reduction of surface roughness caused by melt fracture, increasing production capacity, decreasing energy consumption and maintenance costs, and a smoother production.

NovinAid-FPA410 Masterbatch is the new generation highly technical product based on Fluoropolymer and a PE carrier resin. It is widely used in film extrusion to improve the process ability of the polymers at higher shear rates. Addition of NovinAid-FPA410 masterbatch reduces the melt fracture or shark skin effect during the process of LLDPE / LDPE / HM-HDPE by extrusion process.

Main Features

- Broadens extrusion processing capabilities of polyolefin resins.
- Reduces or eliminates Die build up.
- Lowers apparent Melt Viscosity.
- Imparts a smooth and glossy surface to the films.
- Allows the process film with narrow die gap.
- More uniformity in film thickness and coating gauge.

- Reduces the wear and tear of the melt line, as a result increases the life of the processing equipment.
- Reduces the melt COF and hence there is an increase in output

Specifications

Property	Value
Appearance	Milky Opaque Cylindrical Pellet
MFI (g/10min;190^{0}C/2.16 Kg)	2-3
Melting Point (°C)	125
Density (g/cm^3)	~0.92
Carrier Resin	LDPE/LLDPE
Addition Rate	0.5 ~ 1.5% depending on desired effect

Guideline to Use

NovinAid-FPA410 works by modifying the interface between the polymer melt and the metal surfaces of the extruder barrel and die. The following is directions for start-up:

1. The user must ensure all metal surfaces coming in contact with polymer are thoroughly cleaned so that they become coated with fluoropolymer.

2. Start-up by adding 5% NovinAid-FPA410 and 95% base polymer to pre-condition the extruder with fluoropolymer.

3. After 15-20 minutes adjust extruder to full operating output speed and reduce NovinAid-FPA410 to approx. 0.5-1.5%.

4. Without a prolonged production interruption it should be possible to start-up without preconditioning the extruder.

5. If the extruder has been cleaned with an abrasive purging compound, start-up should be as above.

6. NovinAid-FPA410 has a favourable effect on viscous molten polymers during extrusion and injection. It is also used in HDPE pipe extrusion.

7. NovinAid-FPA410 is not recommended if temperatures > 240°C.

Recommended addition rates of NovinAid-FPA410 are between 0.5 and 1.5% by weight of the masterbatch, depending on the final film thickness, the processing conditions and the polymer grade. Exact quantity depends on machine, the final film thickness, the processing conditions, polymer type etc, however, polymer containing mineral additives such as silica anti-blocking agent is more abrasive, and so more NovinAid-FPA410 masterbatch is needed. Generally the 1% use of this masterbatch gives a good result for processing film.

Applications

Suitable for film blowing process, pipe production and blow molding.

Packaging

The standard packing is 25 kg laminated PP woven bags.

Storage

Keep the product in cool & dry place with good ventilation. Away from the direct sunlight, high temperature, rain pour and not under heavy loads.

Contacts:

Detailed information on special applications and technical information is available at the Technical Department.

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