



Masterbatches e Additivi per Materie Plastiche ed Elastomeri

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FerroCling PW 60

Informazioni Tecniche

Cling Agent Masterbatch

Introduction

FERROCLING PW 60 is a concentrate of high molecular weight Polyisobutylene tackifier in Linear Low Density Polyethylene.

It is used as a cling agent to make stretchwrap and foodwrap films from LLDPE or LDPE.

It is a dry free-flowing pellet

Typical Physical Properties

Appearance	Lightly powdered opaque dry pellets	
% PIB	57-63	MO203-700*
Specific Gravity	0.912	MO13-700*
Bulk Density (g/cm ³)	0.50	MO28-700*

* manufacturer's internal method

FERROCLING PW 60 is designed to produce stretch film from LLDPE, LDPE or other polyolefins for the applications of palletwrap, silagewrap and foodwrap. It can be used in both blown or cast film process.

Polymers used with **FERROCLING PW 60**, must not contain any slip or antiblock additives or have a density higher than 0.923 as this will prevent the migration of the cling additive.

Migration time for good cling properties is 24-72 hours.

Recommended Addition Rates

- For monolayer blown films 8 % **FERROCLING PW 60** by weight should be added to LLDPE (or resin mix).
- For monolayer cast films 3 and 4 % **FERROCLING PW 60**.
- On multilayer film lines, **FERROCLING PW 60** is often added to the skin layers only.

Addition rate depends on which layer is used and the layer thickness.

Food Contact Status

Polyisobutylene and Polyethylene are allowed by the FDA for use in contact with food (21 CFR 117,1430 and 21 CFR 177.1520) and also meets the requirements of EU 10/2011 amended by regulation 1183/2012 modifying EC Directive 90/128/EEC and EC Directive 94/62/EC.

Packaging & Storage

Product is packed in 25 kg PE bags on 1.375 kg shrinkwrapped pallets.

Store in cool place (less than 30°C) out of direct sunlight and not under heavy loads.

Shelf life 9 months minimum. Shelf life of product is more than 2 years.

Manufacture of stretchwrap blown film using FerroCling PW 60

Suggestions

We would like to tell you how can best make stretchwrap film for Pallet wrapping, using **FerroCling 60** Masterbatch on Blown film lines. Blend 10% by weight of **FerroCling PW 60** pellets with 90% of Polyethylene thoroughly in a ribbon or tumble blender or other suitable blender, so that the mix is uniform.

Typical Mixture

The 90% PE resin mix typically consists of the following:

- ❑ 100% LLDPE either C6 or C8 such as Dowlex 2045
- ❑ 90% LLDPE & 10% LDPE (helps clarity)
- ❑ 80% LLDPE & 10% LDPE (clarity) & 10% EVA (added cling)

None of the resins to be used must have any "slip" agent or "antiblocking" agent. This is very important, as the presence of any such additive will destroy the cling properties of the film. For initial trials no re-cycled resin should be used.

Temperature Profile

The temperature profile of the extruder should be as follows:

First Zone	Not greater than: 130°C
Second Zone	: 170°C
Third & Fourth Zones	: 200°C
Die Zones	: 210°C

The bubble formed on a 25 microns should have a blow-up ratio of about 4-5 to 1.

The film should be trimmed just before the wind-up rolls.

The tension on the rolls should be such that they are not wound too tightly or they will bunch-up at the ends and telescope when stored. If too loosely wound the rolls will hump in the center and sag when stored on end.

Some cling will develop during wind-up but the maximum cling effect will take place during the 24 hours after production.

Storage of rolls should not exceed 30°C if possible.

If you follow these directions, it should help you to achieve an excellent stretchwrap film, with a higher degree of clarity.