



## Escoat® P-77 Release Coat

### Introduction:

Escoat P-77 is a polyolefin masterbatch of a non-silicone release coating used widely for pressure sensitive labels, film, and tapes applications. The Escoat P-77 masterbatch is produced using a linear low-density polyethylene (LLDPE) carrier resin. The masterbatch can then be blended with polyethylene resins and extruded as a film with release coat in it. The release coat under most conditions will bloom to the surface and act as a release film/layer. No solvents are then needed to apply the release coating. The release coat used has a high degree of purity, quality and tight melting point range that offers superior properties and performance to critical release coat users. The Escoat P-77 can be used on films with adhesives based on natural rubber, SBR, SIS, acrylic, etc. primarily for obtaining release in self wound tapes where tight peel is mandatory.

### Material Description:

Carbamate Release Coat in LLDPE

### Chemical Name:

Polyvinyl Octadecyl Carbamate (PVODC) in LLDPE

### Empirical Formula:

$[\text{CH}_2\text{-CH}(\text{OCONHC}_{18}\text{H}_{37})\text{-}]_n$  in  $\text{-(CH}_2\text{CH}_2\text{)-}_n$

### CAS #:

36671-85-9 in 9002-88-4

### Molecular Weight:

$[339]_n$  or  $> 100,000$  in  $\sim 10,000$

### Physical Properties:

Appearance:	Natural colored pellets
Melting Range (PVODC):	87 - 107°C
Melting Point of Masterbatch:	Like the PE
Film Forming:	At extrusion temperature
Composition:	
Polyolefin:	80%
PVODC	20%

### Characteristics:

A masterbatch in LLDPE at a 20% concentration of PVODC Release Coating. The Escoat P-77 pellets can simply be blended with the polymer resins, and all fed into the extruder. A solvent is not needed for the application of the release coating.

### Applications:

The PVODC portion of the Escoat P-77 provides good release properties and prevents delamination or tearing when applied to the

backing on the side opposite the adhesive. The PVODC has been extensively tested and is widely approved for use with pressure sensitive tapes such as polypropylene, polyethylene, and other substrates that require unwinding ease. Good release properties can be obtained using as little as a 2.0 – 4.0 % release coat solids content in the film substrate.

**Advantages:**

- The PVODC narrow melting point range ( $\pm 5^{\circ}\text{C}$ ) assures consistent release properties.
- Release effects remain stable after oven aging.
- 100% dry pellets/ No solvent needed.
- No solvent recovery systems needed.
- No fire hazard or special red-label storage area required for Escoat P-77 pellets.
- No processing required at the point of use.

**Storage:**

This product may be stored up to two years in sealed containers. Containers should be stored in cool, dry areas. Extended storage at elevated temperatures or exposure to direct heat could reduce product shelf life. Keep containers sealed when not in use and during transport.

**Toxicity & Safety:**

This material is not intended for use in products for which prolonged contact with mucous membranes or abraded skin, or implantation within the human body is specially intended, unless the finished product has been tested in accordance with the Food and Drug Administration and/or other applicable safety testing requirements. Because of wide range of such potential uses, Mayzo, Inc. is not able to recommend this material as safe and effective for such uses and assumes no liability for any such uses. Read and understand the Material Safety Data Sheet before using or handling this product.

**FDA Regulations:**

The individual components of the Escoat® P-77 have been tested and approved for clearance for use in food contact applications. Contact your Mayzo representative if more details of this approval are needed.

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