



Escoat P-35 Solids Release Coat

Introduction: Escoat P-35 Solids is a non-silicone product especially produced and widely used in the industry for pressure sensitive labels, film and tapes. Its high degree of purity, quality and very tight melting point range offer superior properties and performance to critical users.

Material Description: Carbamate Release Coat

Chemical Name: Polyvinyl Stearyl Carbamate

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

CAS #: 36671-85-9

Molecular Weight: $[339]_n$

Physical Properties:

Appearance:	Slight yellow-white color, dry powder
Melting Range:	$90^\circ\text{C} \pm 5^\circ\text{C}$
Assay:	99.0% minimum
Solubility Point:	$<30^\circ\text{C}$ (5% in Toluene). Not soluble in water.
Cloud Point:	$<20^\circ\text{C}$ (5% in Toluene).
Film Forming Temp:	Minimum 72°C

Optional Solvent Formulas:

	Suggested Formula	Formula "A"	Formula "B"
RA-95D	5%	5%	5%
Toluene	95%	-	-
N-Hexane or Heptane	-	85.5% (90)	95%
Ethyl Alcohol	-	9.5% (10)	-
Solubility Temp.	30°C	50°C	62°C

Mixing Instructions:

Depending on type of tape film and type of pressure sensitive adhesive, the concentration of solid matter is determined by pre-testing. If a 0.5% weight solution is required, add 500 grams of Escoat P-35 Solids to 2 kgs of toluene. Raise temperature to 122 - 144°F with constant stirring until it becomes clear. Then add this solution to 97.5 kgs of toluene.

Mixing time at 10% solids in toluene at 122 - 144°F requires about 20 - 30 minutes. It takes 2 - 3 hours to dissolve Escoat P-30 Solids at 10% solids in toluene at 120°F.

Applications:

Escoat P-35 Solids provides superior release properties and prevents delamination or tearing when applied to the backing on the side opposite the adhesive. It has been extensively tested and is widely approved for use with pressure sensitive tapes such as polypropylene, polyester, polyethylene, cellophane, duct tapes and other substrates that require unwinding ease. May also be used for foil and paper.

Advantages:

- Narrow melting point range ($\pm 5^{\circ}\text{C}$) assures consistent release properties.
- Release effects remain stable after oven aging.
- Cost efficient. Requires a lower quantity than silicone release coatings. 0.01 to 1.0 grams of Escoat P-35 Solids for one square meter of film is sufficient. Excellent release can be obtained using between 0.3 - 2.0% solids material in toluene, depending on film, coating equipment and desired release levels. Only needs a near-monomolecular film.
- 100% dry powder.
- No fire hazard or special red-label storage area required for Escoat P-35 Solids dry powder.
- One step dilution process. Properly diluted solution will not gel. Does not require high temperature processing that is typically needed for silicone coatings.

Packaging:

Escoat P-35 Solids is available in 25 kg (55.1 lb.) fiber drum, net weight, with inner liner.

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:

This product has not been tested for clearance by the FDA for use as an indirect food additive in food packaging and/or other applications. Contact your Mayzo representative if FDA clearance is needed.

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