

OXYMELT® A-6 DEGASSER AND MELT VISCOSITY MODIFIER FOR POWDER COATINGS



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GENERAL DESCRIPTION

Oxymelt® A-6 is capable of reducing the melt viscosity of powder coating formulations and eliminating pinhole defects. It is particularly effective as a degassing additive in polyester-hydroxyalkylamide (HAA) systems at thicker film builds, and is also useful in polyester-TGIC, hybrid, epoxy, and acrylic systems. Oxymelt A-6 is not recommended, however, for use in polyurethane systems.

Oxymelt A-6 melts within a narrow range that allows ***marked reduction in melt viscosity of resin systems at lower cure temperatures***. Depending on the desired melt viscosity modification or degassing effect, Oxymelt A-6 may be used at a concentration of 0.5 - 5% based on the binder system used. As with any raw material, laboratory evaluation is required for each formulation to determine the optimum concentration of the additive, best processing method, suitability for the application and other specific requirements. Powder coating package stability should be tested.

The product is provided in a free-flowing form that is convenient in handling and easy to disperse.

TYPICAL PROPERTIES*

Appearance	Off-white powder/granules
Non-Volatile, weight %	98.0% minimum
Specific Gravity (25/25)	1.3 – 1.4
Melting Point Range	120 – 132°C
Color, L value	90 minimum
Color, a value	-2.0 - +0.5
Color, b value	10 maximum

* Not to be used for specification purposes

EXAMPLE FORMULATION

Polyester-HAA

Component	Mass Percentage
Polyester Resin (95:5 Type)	59.8%
Hydroxyalkylamide	3.2%
Oxymelt A-6 (Estron)	1.0%
Resiflow® PL-200 (Estron)	1.0%
Titanium Dioxide	20.0%
Barium Sulfate	20.0%

FORMULATING GUIDELINES

- Recommended starting point concentration is 0.5-1% of Oxymelt A-6 based on total formula mass.
- Optimize pre-mix and extrusion conditions for best appearance.

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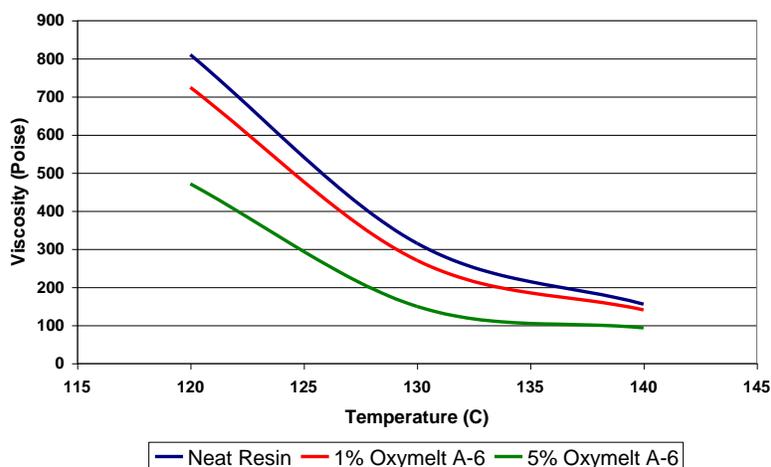


THE EDGE OF INNOVATION

VISCOSITY MODIFICATION

Reduced viscosity of a resin system may afford smoother films at lower cure temperatures. A graphical example of the viscosity modifying effect of 1% and 5% of Oxymelt A-6 on an Epoxy Type 4 resin is shown below. Different resin systems should be evaluated individually for optimization of the desired viscosity modification.

Viscosity Curve of Oxymelt A-6 in an Epoxy Type 4 Resin



REGULATORY LISTINGS

The components in this material are listed on the following chemical listing inventories: ENCS (Japan), NDSL (Canada), ECN (Taiwan), TSCA (USA).

All components are REACH registered per ECHA requirements.

PACKAGING (NET WEIGHT)

55 lb. / 25 kg in fiberboard box with polyolefin liner

PRODUCT AVAILABILITY

This product is commercially available but may require lead time.

STORAGE AND HANDLING

Store in a dry, cool area and avoid excessive heat. Shelf life of unopened containers is one year from date of shipment. Refer to the SDS for additional information.

CONTACT INFORMATION

807 N. Main Street

P.O. Box 127

Calvert City, KY 42029 USA

(270) 395-4195 PHONE

(270) 395-5070 FAX

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TDS Revised by: A. Chizhikova

TDS Approved by: F. Allen