

# TECHNICAL DATA SHEET

# SYNOLAC® E20245

Oil free polyester

### **PRODUCT APPLICATION DETAILS**

SYNOLAC® E20245 is a saturated polyester resin for can, coil, industrial coatings. E 20245 is mainly used for stoving enamels in combination with amino resins.

# **SALES SPECIFICATIONS**

	CHARACTERISTICS	METHODS
Solid content (at 150°C, 1gm, 1hr)	53 - 57 %	ISO 3251
Viscosity (Brookfield Viscometer) (at 25°C)	34 - 40 P	
Color	4 max Gardner	ISO 4630
Acid value	3 max mg KOH/g	ISO 2114

### OTHER CHARACTERISTICS<sup>1</sup>

	CHARACTERISTICS	METHODS
Volatile	Aromatic Solvent 150/ Butyl Glycol (75:25)	
Density (at 20°C)	1.06 g/ml	ISO 2811
Hydroxyl content	15 - 25	

# **MARKETS**

#### **Coatings & Inks**

- Industrial Coating
  - Coil

# **PERFORMANCE BENEFITS**

- Good gloss and good flow
- Good hardness
- Good flexibility
- Good Stain resistance



Acid value and/or Hydroxyl value quoted relative to solid resin
¹The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications

# SYNOLAC® E20245

#### FORMULATION GUIDELINES

#### **RECOMMENDATIONS FOR USE**

SYNOLAC® E20245 is compatible with a wide range of melamine resins and is typically used with hexamethoxymethyl melamine and partially methylated melamine. SYNOLAC® E20245 with hexamethoxymethyl melamine resin at ratio of 70:30 to 85:15 on solid resin content is suggested. To promote cure, the use of between 1% and 5% of acid catalyst is recommended, e.g. paratoluene sulphonic acid, calculated on melamine solids. Variation in the levels of SYNOLAC® E20245 and the type of amino resin will modify the overall performance characteristics of the coating. Increasing the level of amino resin (and catalyst) will generally tend to increase the hardness and solvent resistance of the coating but may compromise flexibility. For Coil Coating applications 85:15 to 80:20 ratio on solids, with hexamethoxymethyl melamine resin is recommended with 2% pTSA catalyst on amino level. For Metal Decorating formulations, a recommended blend on solids, of 72:18:10 OFPE: melamine: epoxy resin (epoxy equ »500) with 2% pTSA on amino solids is suitable. Part methylated amino resin can be used inplace of hexamethoxymethyl melamine and will develop very good hardness & solvent resistance but at the expense of flexibility.

Benzoguanamine resin can also be used to increase cure response and retortability. General industrial enamels can be formulated with 70:30 to 80:20 ratios with hexamethoxymethyl melamine or part methylated melamine, with 2% pTSA catalyst on amino solids. This resin can be used in combination with Isocyanates. Enamels based on SYNOLAC® E20245 exhibit good light fastness results after prolonged UV exposure and finishes are resistant to staining from a variety of household materials.

#### **PRODUCT SAFETY**

Please refer to the corresponding Safety Data Sheet.

#### **STORAGE AND HANDLING**

SYNOLAC® E20245 should be stored indoors in the original, unopened and undamaged container, in a dry place at a temperature not exceeding 30°C. Exposure to direct sunlight should be avoided. In the above mentioned storage conditions the shelf life of the resin will be from the date of manufacturing. Shelf Life (Months): 12

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