

# **TECHNICAL DATA SHEET** SYNOLAC® 20246S-55

Oil free polyester

## **PRODUCT APPLICATION DETAILS**

 ${\sf SYNOLAC}^{\circ}$  E 20246-55 is linear oil free polyester developed for use in Coil Coating, Sheet fed metal decorating and General Industrial applications.

## SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Solid content (at 150°C, 1gm, 1hr)	53 - 57 %	ISO 3251
Viscosity (Brookfield Viscometer) (at 25°C)	25 - 30 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	20 - 30	

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

# MARKETS

**Coatings & Inks**  Industrial Coating - Coil

# **PERFORMANCE BENEFITS**

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



#### FORMULATION GUIDELINES

SYNOLAC® E 20246-55 is compatible with a wide range of melamine resins and is typically used with hexamethoxymethyl melamine and partially methylated melamine.

SYNOLAC® E 20246-55 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<sup>®</sup> E 20246-55 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 in place 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® E 20246-55 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® 20246S-55 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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