SYNOLAC® 9645S65

Saturated (Oil Free) Polyester

Product Information

SYNOLAC® 9645S55 is linear oil free polyester developed for use in Coil Coating, sheet fed Metal Decorating and General Industrial applications.

Outstanding features of the resin include:

- Excellent flexibility
- Excellent hardness
- Good gloss
- Good durability

Sales Specification

Non-volatile content, % (ISO 3251, 1h, 125°C)	54 – 56
Viscosity at 25°C, Gardner Holdt (DIN 53 015)	Z1±
Colour, Gardner scale (ASTM D1544)	Max. 3
Acid value, mg KOH/g (ASTM 3682)	Max. 3

Other Properties

Volatile	Solvesso 150/Butyl Glycol
Density at 25°C, g/cm³ (ISO 2811)	1.06
Hydroxyl Value, mg KOH/g	16.5

Noted: Acid value & OH value quoted relative to solid resin

Recommendations for Use

SYNOLAC® 9645S55 is compatible with a wide range of melamine resins and is typically used with hexamethoxymethyl melamine and partially methylated melamine. It is also compatible with alkyd, polyester, epoxy and partially in acrylic resin.

SYNOLAC® 9645S55 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 levels of **SYNOLAC® 9645S55** 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 an 85:15 to 80:20 ratio, on solids, pTSA catalyst on amino level.

Recommendations for Use

For metal decorating formulations, a recommended blend, on solids, of 72:18:10 OFPE: melamine: epoxy resin (epoxy equ »500) with 2% pTSA solids amino 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.

This resin can be used in combination with Isocyanates.

Enamels based on **SYNOLAC® 9645S55** exhibit good light fastness results after prolonged UV exposure and finishes are resistant to staining from variety of household materials.

SOLVENTS

Mixtures of high boiling aromatic hydrocarbons, alcohols, glycol ethers esters and ketones are appropriate coating applications, aromatic hydrocarbons for Metal Decorating finishes and aromatic hydrocarbon/alcohol blends for General Industrial enamels.

Precautions for Use

Please refer to corresponding Safety Data Sheet.

Storage Recommendations

SYNOLAC® 9645S55 should be stored under shelter in the original containers at temperature not exceeding 35°C. Avoid exposure to direct sunlight.

Shelf Life

Under the above mentioned storage conditions the shelf life of the resin will be 12 months.

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