

# P – 111-60%

## SATURATED POLYESTER RESIN

### PRINCIPAL PROPERTIES

- \* Economical
- \* Excellent flexibility
- \* Good light fastness
- \* Good exterior durability
- \* Excellent stain resistance

### APPLICATION

**P-111** is linear oil free polyester developed for use in Coil Coating, sheet fed Metal Decorating and General Industrial applications.

**P-111** is compatible with a wide range of melamine resins and is typically hexamethoxymethyl melamine and partially methylated melamine.

For an optimum performance with respect to level of cure, flexibility, hardness and impact resistance, a combination of **P-111** 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% to 5% of acid catalyst is recommended, e.g. para toluene Sulphonic Acid, calculated on melamine solids.

Variation in the levels of **P-111** and the type of amino resin will modify the overall performance 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, with hexamethoxymethyl melamine resin is recommended with 2% PTSA catalyst on amino level.

#### **For Metal Decorating:**

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.

#### **General industrial enamels:**

Can be formulated with 70:30 to 80:20 ratios with hexamethoxymethyl melamine or part methylated melamine, with 2% PTSA catalyst. Enamels based on **P-111** exhibit good light fastness results after prolonged UV exposure and finishes are resistant to staining from a variety of household materials.

## PHYSICAL CONSTANTS

Viscosity as such in Brook Field LVT/S – 3, RPM – 12 at 25°C Temperature	20 – 30 Poise
Color on Gardner Scale	3 Max
Acid Value (mg KOH/gm)	10 Max
Hydroxyl Value	55 ± 5
Solvent	(Aromatic : Butyl Glycol) (75 : 25)

## SOLUBILITY

n-Butyl Acetate	Complete Soluble
Xylene	Not Soluble
MTO / WS	Not Soluble

## DELIVERY FORM

P-111	60 ± 2% in (Aromatic : Butyl Glycol) (75 : 25)
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## Suggested Curing Schedules

Coil Coating	232°C - 240°C Temperature	As per Requirement
Metal Decorating	160°C - 200°C Temperature	10 Minutes
General Industrial	150°C Temperature	30 Minutes