

CRAY VALLEY

COATING RESINS

TECHNICAL DATA

SYNOLAC 142S(60%)

SALES SPECIFICATION

Non-volatile content, % @ 150°C	59 - 61
Viscosity, 25°C,CPS (ISO 3219)	14000-18000
Maximum colour, Gardner scale (ISO 4630)	6 Max
Acid value, mg KOH/g (ISO 3682)	6 -10 Max

OTHER PROPERTIES

Volatile	Aromatic Solvent (160° – 180°C)
Hydroxyl value, mg KOH/g	25 - 30
Flash Point	55
Clarity	Slight Haze permissible
Density@23°C	1.06

Note: Hydroxyl value quoted relative to solid resin.

PRODUCT INFORMATION

SYNOLAC 142S is a high quality , extremely flexible linear oil free polyester resin developed for use in DWI can coating, collapsible tube, sheet fed Metal decorating and coil coating applications.

Outstanding features of the resin include:

- Excellent film forming properties.
- Excellent flexibility in terms of deep drawn and cold crush
- Good substrate adhesion.
- Good exterior durability.
- Good UV ink adhesion.

RECOMMENDATIONS FOR USE:

SYNOLAC 142S is compatible with a wide range of melamine resins and is typically used with hexamethoxymethyl melamine resin and partially methylated melamines.

For an optimum performance with respect to level of cure, flexibility, hardness, and impact resistance, a combination of Synolac 142S with hexa methoxy methyl melamine resin at ratio of 70:30,85:15 on solid resin content is suggested.

To promote cure the use of between 1% - 5% of acid catalyst is recommended, e.g. paratoluene sulphonic acid calculated on melamine solids.

Variation in the levels of SYNOLAC 142S 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 metal decorating formulations, a recommended blend on solids of 72 :18:10 i.e. OFPR:MF:Epoxy resin (500eq. wt.) with 2% pTSA solids amino is suitable.

For coil coating applications a 85:15 to 80:20 ratio, on solids with hexamethoxymethyl melamine resin is recommended with 2% pTSA catalyst on amino resin level.

Part methylated amino resin can be used in place of hexamethoxymethyl melamine and will develop very good resistance but at the expense of flexibility. Benzoguanamine resin can also be used to increase cure response and retortability.

CURING SCHEDULES:

For metal decorating a cure schedule of 10 minutes at 160 - 200°C depending on requirements is recommended; cure response will increase with temperature but flexibility may be reduced with high levels of catalyst.

Coil coating finishes based on SYNOLAC 142S can be cured using a peak metal temperature of 232 °c - 240°C.

SOLVENTS:

SYNOLAC 142S is tolerant to high boiling aromatic solvents, glycol ether, glycol ether esters. High levels of aromatic solvents should be avoided. It is also not soluble in alcohols like butanol, IPA.

SYNOLAC 142S should only be used in applications consistent with the above recommendations. Proposals to use the resin in other ways should be discussed with Cray Valley before any action is taken.

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The information given herein must be read in conjunction with the relevant health and safety data. Starting point formulations and suggestions for use are given for guidance only and are made without warranty. This document should not be construed as permission or inducement to practise any invention by patent without the authority of the owner.

CRAY VALLEY (I) PVT. LTD
D-43(1) MIDC Industrial AREA Navi Mumbai - 400706
TELEPHONE: 55907102-08