

**TECHNICAL DATA SHEET**

**Issue No**  
**002/03**

**Revision Date**  
**10.01.2023**

**Product - Trade Name**

PCA® 303LF

**Classification**

Cross Linking Agent  
Melamine Formaldehyde Resin  
Modified Melamine Formaldehyde Resin  
Methylated Melamine Formaldehyde Resin

**Composition**

Hexamethoxy Methylmelamine (HMMM)  
1,3,5-Triazine -2,4,6-triamine, polymer with formaldehyde, methylated

**Product Description**

PCA® 303LF is an amino resin type crosslinking agent. It is basically hexamethoxy methylmelamine supplied in liquid form. It contains more than 98% of non-volatile matter. A wide range of water borne or organo-soluble polymeric materials can be cross-linked with this material. The polymeric materials should contain functional groups e.g. hydroxyl, carboxyl or amide and would include alkyds, polyesters, acrylic, epoxy, urethane, and cellulose.

**Physical properties**

Form : Clear, Viscous  
Sp. Gr. @ 25°C(Typical) : 1.20 ± 0.05

**Chemical Properties**

Parameters	Specification	Test Method ASTM
Non-volatile, % by weight*	98.0 Min.	D-4903/ T17-A(RCPL)
Refractive index	1.510-1.530	D-1218
Free formaldehyde, weight %	0.09 Max.	ISO11402/ D-1979
Viscosity (cP) @ 23°C	3000 - 8000	D-1417

\* As determined by Foil Method, 45 minutes at 45°C

**Solubility Characteristics**

PCA® 303LF resin is soluble in most commonly used organic solvents, e.g., aromatic hydrocarbons, alcohols, esters, and ketone solvents. Though the solubility of PCA 303LF resin in water is limited, when blended with most other water-reducible resins, tolerates dilution in water.

**Reactivity and Catalysis**

PCA® 303LF resin with hydroxyl, carboxyl and amide functionalities on other polymers is typically catalyzed by the presence of a strong acid catalyst (pKa value of <1). Because of its high functionality and low tendency to self-condense, PCA® 303LF resin is a very effective crosslinking agent. When used with polyester resins, in particular, it can provide films with high flexibility and formability. To optimize the quantity of PCA® 303LF, loading to be established experimentally.

**Stabilization**

Solvent based coating formulations containing PCA 303LF resin can be stabilized by adding either alcohol solvents or amines. For many high solids formulations, a combination of both is desired. For a water borne system, pH should be kept at >8 for optimum stability.

**Advantages**

- Economical
- Wide compatibility and solubility
- Solvent-free
- Excellent stability
- Excellent hardness-film flexibility
- Fast catalyzed cure response

**Application Areas**

- Automotive finishes
- Container coatings & Coil coatings
- High solids finishes
- Water borne finishes
- General metals finishes & Inks

**Health and Safety Information**

Refer MSDS for complete details

**REACH Compliance:**

Material is meeting the REACH compliance.

**Storage properties**

Stable for one year, when stored tightly at normal room temperature.

**Packaging**

200 kg in GI / 250 Kg HDPE Drums

Note:

Information in this publication is believed to be accurate and is given in good faith, but it is for the customer to satisfy itself of the suitability for its own particular purpose. RCPL gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that law prevents such exclusion.

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