Ottopol 523 Technical Data sheet

Product Overview

HYDROXYL FUNCTIONAL ACRYLIC

Ottopol 523 is an anionic hydroxyl functional acrylic emulsion. The functionality allows the polymer to cross-link with melamine or aziridine. The use of aziridine will result in a short pot life and will cross-link at room temperature. Formulations using aziridine will require a plasticizer or coalescent solvent to aid the film formation of the dried coating. Formulations using melamine and PTSA (Para-Toluene Sulfonic Acid) are stable for a minimum of thirty days. The starting formulation requires a web temperature of 180 degrees Fahrenheit to activate cross-linking of the resins. An increase in PTSA will lower the temperature required to activate cross-linking. Larger amounts of PTSA will increase the hardness of the dry film. There are no plasticizers or coalescent aids required for film formation when using a melamine resin with Ottopol 523.

HIGH BLOCKING

Catalyzed coatings inherently have high blocking properties, when compared to systems that are not cross-linked.

RESISTANCE PROPERTIES

MEK ---------- 200+ Rubs
Water----------24+ Hours
Isopropyl Alcohol ---------- 200+ Rubs
Household Cleaners ---------- 200+ Rubs
Stain Resistance ----------Dyes in Food

The cured coating has excellent resistance to many solvents and liquids. The stain resistance is excellent. Food and foods containing dyes can completely dry on the surface without staining. Removal of the dried substance requires little effort. It usually peels or scratches off the coating, requiring no cleaners or scrubbing.

Product	***Specifications***
Description ..... Acrylic Emulsion	Specific Gravity 1.0598
Appearance ..... Milky White	Freeze Thaw Stability ..... None
Solids ..... 44.0 - 46.0%	Glass Transition Temperature 105
pH ..... 6.0 – 7.0	FDA Status 176.180
Viscosity ..... 500 - 1500 cps	USDA Approved ..... No
Weight / Gallon ..... 8.84 lb.	

Ottopol Starting Formulations: Stable Catalyzed Varnish

Product Code	***Amount***
1) Ottopol 523	**150.0**
2) Cyanamid Cymel 303 (Melamine)*	**11.0**
3) Water	**10.0**
4) Cyanamid Cycat 40:40 (PTSA 40%)*	**3.5**
5) Aqua Ammonia 28%	**0.5**
	175.0

Place component 1& 2 in a container with agitation and allow to mix for 10 minutes. Pre-mix components 3, 4, & 5 in a suitable container for several minutes. There will be a mild exothermic reaction.. Some water must be included in this step to prevent precipitation between the acid and amine. Pour the pre-mixture into the container and allow to mix for 10 minutes.

Viscosity *200 - 500 cps*

Ottopol Starting Formulation: 50% Crosslinked with Polyisocyanate

Product Code	***Amount***	***Viscosity***
1) Ottopol 523	**100.0**	**200-500 cps**
2) Water	**10.0**	
3) Texanol	**10.0**	**440 cps**
Step A: Mix components 1, 2 & 3 for 10 minutes		
4) Bayer Corp. Bayhydur XP-7063**	**4.2**	**430 cps**

Step B: Add component 4 and mix compound for 30 minutes

Cyanamid* **1-800-438-5615**
Bayer Corp. Bayhydur XP-7063** **1-412-777-2000**