

DM-400 Water-based Dama Resin

Dama resin is a secretion of a borneol spice plant produced in Southeast Asia. It has a transparent light yellow to amber appearance. After esterification conversion, hydrogen bonds are retained, and special process treatment, it becomes an excellent binder for water-based coatings and printing inks.

Product Data

Composition:

Natural resin, polyol modified.

Typical Properties:

Appearance: wine red transparent liquid

Solid content: 54%

Softening point: greater than 160°C

Viscosity: adjusted according to customer requirements

PH value: 7-8 Acid value: 190

Molecular weight: 500

Compatibility: soluble in water, ethanol, isopropanol, ethyl acetate, PM and other

organic solvents.

Type: DM400

*. The values indicated in this data sheet describe typical properties and do not constitute specification limits.

Applications

Special Features and Benefits:

Natural resin, polyol modified, low molecular weight, can achieve some requirements that cannot be achieved by monomer synthetic resin. After adding, it can increase the peeling force of ink, increase the cohesion of ink and the open time of ink, and solve the color difference problem of long-term printing of ink. It can be ground with color powder alone and then mixed with ink. It can be dispersed and ground with alcohol, water, pigment, dispersant and mixed solvent. Damar resin contains two hydrogen bond acceptors and four hydrogen bond donors. It has good adhesion on non-absorbent substrates.



Recommended Use

Used in plastic inks, composite inks, and surface printing inks such as BOPP, PP, and PE to increase adhesion, fluidity, brightness, and drying speed, increase the re-dissolution performance of printed resins, and improve the miscibility and stability of resin emulsions. In particular, it has a certain firmness when used on untreated plastic films.

Addition amount

According to the formula amount: 5%-10%

*. The above data are the dosage ratios in the formula. The optimal dosage needs to be determined through a series of tests.

Instructions for use

DM400 is used as an auxiliary resin. Adding 5-10% to enhance adhesion can solve the following problems: good water resistance, high adhesion, high gloss, etc. It will not fade when scalded with 100-degree boiling water, and it will not fade when pulled with 3M tape.

Recommended formula (total formula %)

1. Reference formula of water-based plastic gravure printing ink:

Dama resin: 10% HR820/resin: 20%

Clariant 3620 wax powder: 1%

HD40v wetting agent: 1% HH2595X dispersant: 2%

Color powder (organic): 12%

Anhydrous ethanol: 21%

Total: 65%

- 2. Mix and disperse evenly and grind to a fineness of 2 to 3 microns;
- 3. Mix and disperse evenly with 35% HR830 emulsion, and add 0.2 to 0.3% DC51 slip agent

Complete the above operation formula to achieve the ideal adhesion state.





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