

GP-5120

Water-Soluble Urethane Acrylate

INTRODUCTION

GP-5120 resin is a 100% bifunctional water-soluble polyurethane UV oligomer with high solubility in pure water. Does not contain monomers or any volatile VOC organic solvents. Excellent storage stability, no precipitation, delamination, demulsification and other defects. The paint film is soft, has high gloss and has broad adhesion. Can be applied to metal, glass, plastic, paper, wood and other materials. It also has good compatibility with conventional oily resins, and the formula can be adjusted flexibly. It can be used for spraying, roller coating, curtain coating, printing and other processes. It maintains the high efficiency of oil-based products and the environmental protection and safety features of water-based UV.

TYPICAL VALUES

T _g (°C)	-25
MW(GPC)	2500
Elongation at Break%	45
Colour, Gardner	2
Pondus Hydrogenii Value	5-7
Viscosity at 60°C,mPa.s	25000
Specific Gravity	1.12
Effective content	100%

APPLICATION

UV ink : With GP-5120 as the main application in the paper, plastic film packaging and printing industries, the environmental protection advantages of the paint film can be highlighted. The special water solubility, alcohol solubility and alkali solubility can meet specific process requirements in the electronic ink industry.

UV coating : In vacuum electroplating, UV spraying, nano-spraying, decorative and protective coating applications for plastics, metals, and wood. Good bonding with metal coating, flexible cured film, excellent alcohol resistance.

INTERMISCIBILITY

monomer : It is recommended to cooperate with hydrophilic monomers, such as monofunctional monomers (HEMA, HEA, HPA) and NVP vinylpyrrolidone to enhance the adhesion performance of the product. The use of 15EOTMPTA ethoxylated monomer can enhance the strength and toughness of the coating film and greatly improve the resistance to chemical erosion.

Solvent : It has good solubility with alcohols and alcohol ether solvents, and can be dissolved in a mixed solution containing alcohol ether and water at a ratio of 100:100.

Resin and pure water can achieve a high solubility of 100:80.

polymer : It has limited compatibility with oil-soluble polyester, epoxy, and polyurethane acrylate to meet the needs of formula formulation. The increase in alcohol and ether solvent content will enhance the solubility with oily resin.

The use of Trust 7170 four-functional polyester acrylate can increase the hardness of the paint film and significantly speed up the curing speed.

Auxiliary : Surface additives such as wetting and leveling are crucial to the appearance and adhesion of the paint film. Tego245 wetting agent is recommended to reduce the adhesion impact on upper layer plating and recoating.

packing: 20kg plastic barrel , 200kg drum

更详尽的应用参考资料及 MSDS 备索……

