BPI-2000

UV-cured modified polyimide resin

INTRODUTION

Applications: BPI-2000 is an addition-polymer polyimide (PI) resin. Its molecular structure incorporates highly reactive C=C double bonds, resulting in a high electron deficiency due to the influence of two adjacent strongly electron-withdrawing carbonyl groups. Under heating or catalysis, it undergoes cross-linking and curing, forming a polymer material with high cross-linking density and a rigid cyclic structure (benzene ring, imide ring). This unique structure endows it with excellent comprehensive properties: its decomposition temperature exceeds 420℃, its long-term service temperature range is 177-232℃, and it possesses high strength, high modulus, low coefficient of thermal expansion, high thermal conductivity, excellent resistance to damp heat, radiation, flame retardancy, and resistance to various solvents and acids/alkalis.

Protection and Adhesion: In the field of safety protection, flame-retardant protective clothing made from this resin rapidly carbonizes upon contact with flames, forming an insulating layer that effectively prevents combustion and molten dripping. Special adhesives based on this resin can be used continuously at 260° C and are widely used in the aerospace field for structural bonding of materials such as titanium alloys, aluminum alloys, and ceramics.

Mold Molding: The resin possesses self-lubricating properties, a low coefficient of friction, and high wear resistance, while maintaining excellent flexural and impact strength.

TYPICAL VALUES

Appearance	pale yellow powder
molecular weight (GPC)	35000
Melting point ℃	160-170
Dielectric constant（1kHz）	3.85
Purity %	99.5
acid value mg KOH/g	max. 1

INTERMISCIBILITY

Monomer: Good compatibility with monomers such as VM-3540 and AM-317.

Solvent: Highly polar solvents such as NMP are recommended, or it can be dissolved in benzene or ketone solvents upon heating.

APPLICATION

Electronic Information: With its low dielectric constant and low dielectric loss, it is widely used as a base resin for manufacturing high-frequency and high-speed copper-clad laminates. It is a core material for printed circuit boards (PCBs) to achieve high-speed and high-fidelity signal transmission, and is crucial for the miniaturization and high performance of cutting-edge electronic products such as artificial intelligence servers, computers, autonomous driving and intelligent medical devices.

***packing*: 25kg** Each barrel

More detailed application references and MSDS are available upon request.……