

BISDA - BISPHENOL BASED DIANHYDRIDE

Specialty dianhydrides can be used as an epoxy curing agent or as building blocks for polyimides. When used as an epoxy curing agent, these dianhydrides can provide enhanced thermal performance greater than mono-anhydrides and aromatic amine alternatives. When utilized in polyimides, enhancements in flexibility, processing, chemical resistance and moisture absorption can be attained.

Bisphenol-A Dianhydride, BisDA

BENEFITS OF BISDA

BISDA (BPA based dianhydride) has excellent thermal properties that may be used as a co-monomer in Polyimide synthesis or as a curing agent in epoxy thermoset systems. BISDA is provided as a flake and is soluble in the typical organic solvents used in polyimide varnishes, coatings, adhesives, films and wire enamels. Incorporating BISDA into polyimide formulations may provide enhanced performance in: heat resistance, flexibility/softness, dimensional stability and metal adhesion properties. In epoxy systems, BISDA as a curing agent may offer improved thermal performance, increased pot life, easier handling, improved chemical resistance, better toughness, lower dielectric properties, lower shrinkage and lower moisture absorption.

BASIC INFORMATION:

| Chemical Name | Bisphenol-A Dianhydride, (BisDA) |
|-----------------------|-------------------------------------|
| CAS# | 38103-06-9 |
| Formula | $C_{31}H_{20}O_{8}$ |
| Physical State | Solid |
| Molar Mass | 520.49 g/mol |
| Purity | Min. 97% |
| Color | White to Yellowish |
| TSCA | Listed |
| рН | 5-6 |
| Melting Point | 185-190 °C (365 to 374°F) |
| Boiling Point | > 314°C (> 597.2°F) |
| Solubility in Solvent | 10 wt% in MEK@75 °C |
| Autoignition Temp. | 560 °C (1040 F) |

Potential uses include:

- Epoxy hardener
- Polyimide building block

Potential market areas include:

- Electronics
- Automotive
- Building & Construction
- Oil & Gas

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