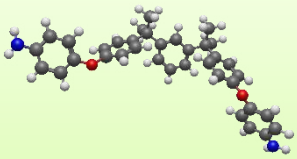
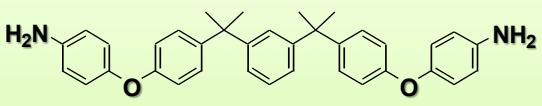
WINGO
TECHNOLOGY Co.,Ltd.

Ester-Type Diamine Compound "BPMAN"

Diamine BPMAN





Molecular Weight：528.68

Chemical Formula：$C_{36}H_{36}N_2O_2$

1,3-bis[4-(4-aminophenoxy)-α,α-dimethylbenzyl]benzene

BPMAN is an **ether-type aromatic diamine** designed for high-performance polyimides and poly(ester-imide) materials. Its unique structure combines a rigid aromatic backbone with **α,α-dimethylbenzyl substituents** and **para-aminophenyl terminals**, offering an optimal balance of **thermal stability** and **molecular flexibility**.

Key Features

- **High Tg** due to rigid aromatic backbone, maintaining thermal stability at elevated temperatures
- **Suppressed intermolecular charge transfer complex (CTC) formation**, reducing coloration and enhancing optical transparency
- **Ether linkages** provide molecular flexibility while retaining dimensional stability
- **Low water absorption** ensures excellent environmental stability
- **Facilitates low dielectric constant (Low-k)**, ideal for high-frequency applications
- Balanced mechanical properties with **improved ductility and crack resistance**

Target Applications

- High-frequency insulation layers (Low-k)
- Semiconductor interlayer dielectric films (ILD)
- Flexible electronic devices and high-temperature adhesives