



Chemical Corporation

UNIPLEX FRP-64
Poly(2,6-Dibromophenylene oxide)
CAS No. 69882-11-7

Description: A off-white melt-processable solid flame retardant containing 64% aromatic bromine. Resin systems compounded with Uniplex FRP-64 have high chemical and flame resistance, minimal thermal discoloration, and excellent light stability.

Applications: Unfilled and Reinforced Thermoplastic Polyester (PBT and PET)
Unfilled and Reinforced Polyamide Resins (Nylon 6 and 66)

Typical Properties:

Bromine Content (%)	64 min.
Thermal Stability (5% Loss)	400°C
Iron Content (ppm, AA)	2 max.

Solubility (g/100g Solvent at 25°C):

Water	Insoluble
Acetone	Insoluble
Isopropanol	Insoluble
Xylene	Partially soluble
Tetrahydrofuran	>40

General Specifications:

Appearance	Off-white powder
Softening Range (DSC)	210-240°C
Sodium Bromide Content (%)	0.10 max.
Tribromophenol Content (% by GC)	0.15 max.
Loss on Drying (2 hr, 135°C)	1.0 max.

Health & Safety: Refer to Material Safety Data Sheet (MSDS).



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Application Data:

Polyester (PBT and PET) and Polyamide (Nylon 6 and Nylon 66) compounds incorporating Uniplex FRP-64 demonstrate excellent mechanical and thermal stability properties. Since Uniplex FRP-64 is a polymeric flame retardant, it does not bloom or migrate from the plastic or cause plate-out during injection molding. Uniplex FRP-64 melt blends during normal processing conditions to produce good flow characteristics necessary for thin walled or multi-cavity parts. This flame retardant is particularly useful in the manufacture of electrical/electronic component parts (e.g. electrical connectors)

Flame retardant Polyester Resins:

Compound Type	Loading FRP-64,%	Loading Sb₂O₃,%	UL-94 Rating 1/16 in	HDT (264 psi, °C)
Unreinforced PBT	20	5	V-0	66
30% Glass-filled PBT	14	3.5	V-0	203
30% Glass-filled PET	10	2.5	V-0	201

Flame retardant Polyamide Resins:

Compound Type	Loading FRP-64,%	Loading Sb₂O₃,%	UL-94 Rating 1/16 in	HDT (264 psi, °C)
Unreinforced Nylon 6	18	4.5	V-0	65
Unreinforced Nylon 66	18	4.5	V-0	72
20% Glass-filled Nylon 66	16	4	V-0	233

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