BENOX®B-50 & B-55

Dibenzoyl Peroxide Paste
CAS# 94-36-0

Description

BENOX®B-50 & B-55 are fine dispersions of dibenzoyl peroxide in a smooth, non-separating fire resistant creamy paste form. The patented (U.S. Patent No. 5,334,326) benzoate plasticizer diluent system provides product formulations that can be readily dissolved in resins and monomers. These products are less hazardous and easier to use than technical or dry forms of dibenzoyl peroxide provided the plasticizer and water content are not objectionable. Additional benefits of the benzoate plasticizer system include better resistance to the dispersion of heat degradation and the elimination of phthalate ester plasticizers.

BENOX®B-50-106 – Creamy, white, non-separating paste containing 50% dibenzoyl peroxide. Primarily formulated for use with auto body filler.

BENOX®B-50-210 – Blue pigmented version of 50% dibenzoyl peroxide in paste form. B50-210 is a creamy, non-separating product formulated for use with auto body filler.

BENOX®B-50-230 – Lighter Blue pigmented version of 50% dibenzoyl peroxide in paste form. B50-230 is a creamy, non-separating product formulated for use with auto body filler. For customers that prefer a lighter blue paste hardener.

BENOX®B-50-513 – Red pigmented 50% dibenzoyl peroxide paste. This product is the most popular in the B-50 line of creamy non-separating paste formulations.

BENOX®B-50-713 – Onyx pigmented 50% dibenzoyl peroxide paste. B50-713 is a creamy, non-separating product formulated for use with auto body filler.

BENOX®B-55-107 – A basic white, paste form of 55% dibenzoyl peroxide formulated primarily for use in the mine bolt industry and other industries which require a product that can be further diluted prior to use.

BENOX®B-55-108 – This white, paste form of 55% dibenzoyl peroxide is formulated for use in ambient and elevated temperature curing of unsaturated polyester resins. B-55-108 is characterized by its lower water content and creamy non-separating form, compared to the 107 formulation.

Technical Data

	Benox®B-50	Benox®B-55
Dibenzoyl Peroxide Content:	50	55
Active oxygen	3.3	3.6
Form:	←Thixotropic Cream→	
Color:	← White→	
Soluble in:	Oxygenated & aromatic solvents	
Slightly soluble in:	Alcohols & petroleum solvents	
Insoluble in:	Chlorinated solvents	

Technical Data Sheet

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Application

BENOX®B-50 & B-55 is principally used as polymerization initiators and curing agents for monomeric vinyl, acrylic, styrene and unsaturated polyester/vinyl ester resins, and copolymers of these resins, provided the plasticizer and water content can be tolerated. This product has advantages over dry, granular products, and include:

1. Marked reduction of hazards involved in handling and storage.
2. The homogeneous dispersion of extremely fine particles of dibenzoyl peroxide in plasticizer dissolves more readily in resins and eliminates the hazardous practice of dissolving dry dibenzoyl peroxide in styrene, acetone, or other volatile solvents.

ROOM TEMPERATURE MOLDING
BENOX®B-50 & B-55 can be used for room temperature curing of pre-promoted polyester and vinyl ester resins. Dimethyl or diethyl aniline are the most generally used, but another that can be used is N, N-dimethyl-p-toluidine. These promoters, or accelerators, are generally used in concentrations between 0.01% and 0.6%, on weight of resin. The B-50 & B-55 use levels can be between 0.5% and 5.0%, depending on the desired gel and cure properties.

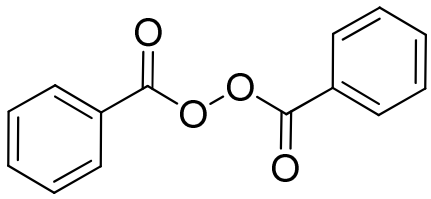
CAUTION: ABSOLUTE CARE MUST BE TAKEN TO PREVENT DIRECT MIXING OF B-50 & B-55 WITH ANY OTHER PROMOTER. DOING SO COULD CAUSE A VIOLENT DECOMPOSITION RESULTING IN A FIRE OR EXPLOSION.

AUTO BODY FILLER
BENOX®B-50 is used to cure auto body patching compound formulated with unsaturated polyester resin. The creamy paste form of BENOX®B-50 allows the user to easily and uniformly mix the peroxide with the patching compound for a rapid, uniform cure. BENOX®B-50 is available in several colors which serve as a visual guide to ensure uniform dispersion in the patching compound. Repackaging of the peroxide in peroxide in polyethylene tubes or jars is easily accomplished, but extreme care should be taken to avoid contamination. Use only clean and dust-free containers for repackaging.

ELEVATED-TEMPERATURE MOLDING
BENOX®B-55 is widely used in elevated in the elevated-temperature curing of polyester compounds in heated molds. The practical operating temperatures of BENOX®B-55 initiated resin curing are between 180°F and 300°F. Processes which can use BENOX®B-55 include matched-metal molding, hot press molding, bag molding, compression and transfer molding.

ADHESIVES
B-50 & B-55 may be used in two-part adhesive systems based on polyester or methacrylate resins. The creamy consistency allows uniform mixing of the components. The non-separating aspect of B-50 & B-55 allows repackaging into smaller, more useable quantities.

CHEMICAL STRUCTURE



PACKAGING, SHIPPING & AVAILABILITY

- The standard package sizes of BENOX®B-50 & B-55 are 50 lb. and 22 kg plastic pails and 175 kg polyethylene lined, fiberboard drum, and 55 gallon poly drum. For custom package sizes, please contact your local distributor or United Initiators, Inc.
- Classification – Please refer to the specific BENOX®B-50 & B-55 Safety Data Sheet (SDS) under section 14 & 15, shipping & regulatory information. **NOTE:** SDS's for all United Initiators, Inc. products may be requested by contacting the company.
- BENOX®B-50 & B-55 is available through a global network. Call United Initiators, Inc. for the name of the distributor in your area

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