

INTRODUCTION

AEROTEX IBMA Monomer, a homolog of N-methylolacrylamide (NMA), is the isobutyl ether of NMA. It contains a readily polymerizable vinyl group as well as a crosslinkable iso-butoxymethyl group. The isobutyl group imparts organic solubility to IBMA permitting the preparation of three general classes of polymers:

1. Organic soluble or solvent based polymers which, on application can be thermoset or crosslinked through either self or external crosslinking mechanisms.
2. Water based or emulsion polymers can also be either self or externally crosslinked at the point of application. The presence of the iso-butoxymethyl group offers several advantages in emulsion polymers.
 - ♦ The organic solubility of IBMA enhances its compatibility with other vinyl monomers permitting the incorporation of larger quantities into the polymer backbone relative to NMA.
 - ♦ The alkyl ether stabilizes the methylol group, thus providing greater resistance to premature crosslinking.
3. In radiation curing systems, AEROTEX IBMA can be used as a reactive diluent. All of the components present in IBMA with the exception of a small amount of isobutanol are radiation polymerizable through the vinyl double bond. Upon further heating of the IBMA-containing radiation-cured polymer, additional crosslinking can take place through the iso-butoxymethyl group.

PERFORMANCE HIGHLIGHTS

- Improved water and solvent resistance
- Improved adhesion
- Improved tensile strength
- Higher impact resistance
- Flexibility
- Resistance to blocking
- Good hand properties

TYPICAL PHYSICAL PROPERTIES

Appearance	Clear to slightly hazy liquid
Color, APHA	≤ 80
Viscosity @ 23°C, mPa.s	≤ 100
Actives, wt %	84 - 88
IBMA, wt %	75 - 82
N-Methylolacrylamide, wt %	2 - 6
Acrylamide, wt %	2 - 6
Isobutanol, wt %	≤ 5.0
MEHQ Inhibitor, ppm	180 - 220

SOLUBILITY @ 25°C

Water	Insoluble
Acetone	Soluble
Acetonitrile	Soluble
Toluene	Soluble
Carbon tetrachloride	Soluble
Chloroform	Soluble
Dimethylformamide	Soluble
Ethyl acetate	Soluble
Hexane	Insoluble
Methanol	Soluble
Tetrahydrofuran	Soluble
Acrylonitrile	Soluble
Ethyl acrylate	Soluble
Methyl methacrylate	Soluble
Styrene	Soluble
Vinyl acetate	Soluble

STABILITY

AEROTEX IBMA is stable under normal storage conditions and has a shelf life of 365 days from the date of manufacture. It does not show any significant change in viscosity or reactivity after three months storage at 48°C. However, exposure to ultraviolet light, low pH and /or unnecessary heat should be avoided. Storage in a cool dark place is recommended. Contact with metallic copper, bronze or brass during storage should be avoided.

SAFETY AND HANDLING

Before using AEROTEX IBMA, consult the Safety Data Sheet for additional information on hazards, handling procedures, and recommended protective equipment.