

Elvacite[®] 4346

Acrylic Resin for Low VOC

Elvacite[®] 4346 is a solid methyl methacrylate copolymer bead resin designed for use in formulating environmentally sound coatings and adhesives. Elvacite[®] 4346 has a low molecular weight to provide low solution viscosities to give maximum formulation latitude.

Performance Features and Key Benefits

- Excellent solubility in VOC exempt solvents
- Solvent free
- Allows formulation to lower VOC due to lower viscosity at high solids
- Useful as an additive to improve alkyd resin hardness
- Improves inorganic pigment dispersion

Typical Properties^a

Appearance	Solid bead
Glass Transition Temp, onset	74°C
Molecular Weight (Mw)	22,000
Acid Number (mg KOH/g Resin)	0
Amine Number (mg KOH/g Resin)	18

a) Typical physical properties listed are approximate values and should not be considered manufacturer's release specifications. Manufacturer's release specifications are subject to change without notice, please contact your Elvacite[®] representative for the latest product specification details.

Preparing Solutions

Elvacite® resins dissolve at room temperature but require constant agitation to prevent solvent-swollen granules of polymer from forming agglomerates and sticking to the walls of the vessel.

Important: The polymer beads should be sifted directly into the vortex of the stirred solvent to speed wetting-out and dispersion. Continuous low-shear agitation for periods of 1-12 hours, depending on the grade and concentration of resin, is recommended.

After the solution appears clear in the tank, a sample should be spread out on a Leneta card or glass. After the solvent evaporates and a film forms on the card or glass, there should not be any resin seeds. If there are any seeds, the tank should be agitated further to fully dissolve the resin. Tank agitation should not be stopped (except for sampling) until the film test indicates there are no resin seeds. Any cloudiness or residue may indicate that some polymer remains undissolved. The presence of water in the system can also cause cloudiness.

Solution time can be reduced by heating; most common solvents can be heated to approximately 49°C (120°F) without the need for reflux equipment. High-shear agitation also cuts dissolving time, but requires care to avoid overheating and excessive solvent loss.

Solubility of Elvacite® 4346 at 30% solids		
Solvent	Solubility	Rating
Toluene	S	C
Acetone	S	C
Methyl ethyl ketone	S	C
Dimethyl carbonate	S	C
Methyl isobutyl ketone	S	C
n-Butyl acetate	S	C
t-Butyl acetate	S	C
Ethyl acetate	S	C
n-Propyl acetate	S	C
Low odor mineral spirits	I	-
<i>(S = Soluble, H = Hazy solution, C = Clear solution, I = Insoluble)</i>		

Pasadena, Texas, USA

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Mitsubishi Chemical America, Inc., Specialty Resins Division hereby certifies that the country chemical inventory status of Elvacite® 4346 is as follows.

US	CA	AU	CN	KR	NZ	PH	TW	JP	Russian Federation	TH	Vietnam
TSCA	DSL	AIC	IECSC	KECI	NZIoC	PICCS	TCSI	ENCS	Unified list of chemicals	DIW	NCI
PE	N	N	N	N	N	N	N	N	N	N	N

Y: Listed

N: Not Listed

PE: Listed as an active Polymer Exemption

For further information or samples, please contact your local distributor, or:

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