

Elvacite[®] 4348

Acrylic Resin for improved performance in high humidity

Elvacite[®] 4348 acrylic resin provides a balance of flexibility, hardness, adhesion, and outdoor durability. Elvacite[®] 4348 can be used for concrete, masonry, and many other substrates. This product shows less whitening when exposed to high humidity than our standard Elvacite[®] 2016 product. The solid bead resin is soluble in common solvents such as toluene, xylene, acetone, t-butyl acetate, methyl ethyl ketone, etc.

Typical Properties ^a	
Appearance	Solid bead
Glass Transition Temp, onset	55°C
Molecular Weight (Mw)	55,000
Acid Number (mg KOH/g Resin)	3.5
Clarity (40% solids in toluene)	Clear
Gardner Viscosity, 25°C	O-U @40% solids in toluene
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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.

Adhesion Properties to Concrete¹

Product	Dry Adhesion ²
Elvacite [®] 4348	5
Commercial Acrylic Resin 1	5
Commercial Acrylic Resin 2	5

¹Coatings are formulated in toluene at 30% solids to form a solution without external plasticizer. Adhesion properties are determined after the solution is drawn down and then dried at room temperature for 7 days.

²Dry adhesion is rated on a 0 (>65% coating area removed) to 5 (no failure) scale as described in ASTM D3359.

³Wet adhesion is tested after water soaking for 7 days and then subjecting the coating to crosshatch and tape testing (ASTM D3359).

Preparing Solutions

Elvacite[®] resins dissolve at room temperature but require constant agitation to prevent solventswollen 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.

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

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