

# Chartwell B-515.1

## TECHNICAL DATA

## ADHESION PROMOTERS

### GENERAL DESCRIPTION:

An amino functional metal organic adhesion promoter synthesized using a **STABILIZED BIMETAL PRECURSOR**. The product is supplied in ethylene glycol to aid in rapid dispersion and solubilization of the active components in polymer matrices.

### PHYSICAL PROPERTIES:

<b>Physical form</b>	Clear liquid
<b>Color</b>	pale yellow
<b>Metal content (Total %)</b>	5.2-5.9
<b>Complexed organics</b>	9.1-9.3
<b>Specific gravity (g/ml)</b>	1.23
<b>pH (2% soln)</b>	4.5
<b>Active matter (wt %)</b>	25.5
<b>Solvent</b>	ethylene glycol
<b>Organofunctionality</b>	amino

### APPLICATION:

**(1) Adhesives:** Recommended for epoxy, urethane, and rubber adhesives to enhance adhesion to metals, plastics and elastomers. Increased T-peel strength. Improved resistance to moisture, heat and corrosive environments.

**(2) Coatings:** Recommended for enhancing adhesion of epoxy, urethane, alkyd, acrylic, polyester and other solvent-borne coatings to metal surfaces with resultant reduction in corrosion. Also enhances adhesion to many plastic surfaces. Useful in most water-borne coatings (Latex and polymer dispersion) for enhanced adhesion to metal and plastic substrates.

### PROCEDURE: HIGH SHEAR MIXING NECESSARY IN ALL SOLVENT-BORNE SYSTEMS

**1. Coatings/ Inks:** Optimum performance is achieved when added directly to the grind stage resin and high shear mixed for 15 mins before adding other components. **Must be high shear mixed with a Cowles type mixer. Milling alone is not sufficient.**

- **Two component epoxies:** Add to resin (A side); level is 1.0 - 2.0 wt. per cent of total binder (combined resin + hardener)
- **Two component urethanes:** Add to polyol (B side); level is 1.0 - 2.0 wt. per cent of total binder (combined isocyanate +polyol).

**2. Adhesives:** 1.0-2.0 phr, post add recommended under agitation

**3. Plastics:** 1.0-2.0 phf (parts per hundred filler; recommend pretreat of pigments/ fillers in a Henschel or similar mixer and subsequently compound with resin. For high surface area pigments/ fillers, ie fumed silica, carbon black, phthalo, and similar.

**4. Rubber:** 1.0-3.0 phr, add directly onto silica or other filler and compound in a Banbury mixer.

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