# **Chartwell B-515.1/2H**

TECHNICAL DATA ADHESION PROMOTERS

### **GENERAL DESCRIPTION:**

A high concentration 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:

Physical form Clear liquid
Color pale yellow
Metal content (Total %) 10.4 - 11.8
Complexed organics 18.2 - 18.6
Specific gravity (g/ml) 1.39
pH (2% soln) 4.15
Active matter (wt %) 50.5

**Solvent** ethylene glycol

**Organofunctionality** 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 0.5 1.0 wt. per cent of total binder (combined resin + hardener).
  - Two component urethanes: Add to polyol (B side); level is 0.5 1.0 wt. per cent of total binder (combined isocyanate +polyol).
- **2. Adhesives:** 0.5 1.0 phr, post add recommended under agitation.
- **3. Plastics:** 0.5 1.0 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:** 0.5 1.0 phr, add directly onto silica or other filler and compound in a Banbury mixer.

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