

# Chartwell B-545.1

## TECHNICAL DATA

## ADHESION PROMOTERS

**GENERAL DESCRIPTION:** A methacrylate functional organic adhesion promoter synthesized using a STABILIZED BIMETAL PRECURSOR. The product is supplied in a solvent carrier consisting of ethylene glycol to aid in rapid dispersion and solubilization of the active component in polymer matrices.

### PHYSICAL PROPERTIES:

|                         |                 |
|-------------------------|-----------------|
| Physical form           | Clear liquid    |
| Color                   | pale yellow     |
| Metal content (Total %) | 5.2 - 5.9       |
| Complexed organics      | 9.1 - 9.3       |
| Specific gravity (g/ml) | 1.23            |
| pH (2% soln)            | 4.20            |
| Active matter (wt %)    | 25.5            |
| Solvent                 | ethylene glycol |
| Organofunctionality     | methacrylate    |

### APPLICATION:

**(1) Coatings:** Recommended for enhancing adhesion of UV/ EB cured coatings, ie acrylic, etc. to metal surfaces with resultant reduction in corrosion. Enhances adhesion to many plastic surfaces (oxygen containing polymers only).

**(2) Adhesives/ Sealants:** Recommended for acrylate/ methacrylate adhesives and sealants for improved adhesion to metals, concrete, wood, many plastics (oxygen containing polymers only) and ceramics. Improved T-peel strength and resistance to moisture. Not recommended for adhesion to glass.

**(3) Rubber:** Improved physical properties in mineral filled silicone, EPDM and other peroxide cured rubbers.

**(4) Plastics:** Improved physical properties in free radical cured resins, ie polyesters, acrylics, and polyurethanes.

### 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.**

**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.

Chartwell B-545.1 Data Sheet 8/03

