Chartsil B-525.1

ADHESION PROMOTERS

GENERAL DESCRIPTION: A carboxy functional adhesion promoter absorbed upon a high surface area precipitated silica carrier. The product is a dry free flowing solid which physically breaks down upon compounding (Banbury, Henschel, etc.) to release the active carboxy functional adhesion promoter.

PHYSICAL PROPERTIES:

Physical form	free flowing solid
Color	white
Metal content (Total %)	4.3 - 5.7
Chartwell B-525.1 (wt %)	72
Silica	28
Complexed organics	6.5 - 6.7
Active Matter	18.4
Absorbed Solvent	ethylene glycol
Organofunctionality	carboxy

APPLICATION:

(1) Powder Coatings: Particularly useful for enhancing adhesion of <u>polyester powder coatings</u> to many metal substrates (CRS, aluminum, brass, copper, etc.) where liquid additives cannot easily be handled. Will improve salt fog and blistering resistance and reduce creep at the scribe. Also recommended for enhancing adhesion of thermoset acrylic & polyester solvent-borne coatings to metal surfaces with result-ant reduction in corrosion. Also, enhances adhesion to many plastics (oxygen containing polymers only).

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

(3) Plastics: Recommended for the dispersion of phthalo pigments, carbon black, all inorganic pigments, and mineral fillers in all plastics with improved physical properties in many mineral filled plastics.

PROCEDURE:

1. Powder Coatings: 1.4 - 2.0 phr (parts per hundred resin)

- DO <u>NOT</u> EXCEED recommended use level.
- High Shear Mixing (Henschel, etc.) is strongly recommended

2. Other coatings/ Inks:

• <u>NOTE</u>: All recommended Chartwell levels found in Use Procedure Bulletins apply to liquid products only and must be increased by a factor of 1.4 x to determine corresponding recommended level for Chartsil (solid) products. **The levels recommended in this bulletin require NO adjustments.**

3. Adhesives and Sealants: 1.4 - 2.0 phr, add to resin and high shear mix.

4. Plastics: 1.4 - 2.0 phf (parts per hundred filler/ pigment); recommend preblend with pigments or 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 use 2.0 phf to 4.0 phf.

Chartsil B-525.1H Data Sheet 4/07