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## PRODUCT INFORMATION

**PRODUCT DESCRIPTION:** AC-300/D3577 ALCHEMETAL CONDUCTIVE  
**PRODUCT CODE:** D3577

### GENERAL INFORMATION:

The primary end use for this sample is: CONDUCTIVE COATING

### PRODUCT SPECIFICATIONS:

SOLIDS, theoretical:	30.22 +/- 2.0% by wt.,	23.23 +/- 2.0% by vol.
DENSITY, theoretical:	9.26 +/- 0.2 lb/gal,	1.11 +/- 0.02 Kg/liter
COVERAGE, theoretical:	372.60 sq.ft./gal. at 1 mil,	8.22 sq.m./Kg. at 25 microns

VISCOSITY, as shipped: 20-30 SECONDS #3 ZAHN (S90) CUP at 77°F (25°C)

### TYPICAL PROPERTIES:

FLASH POINT:	180°F,	82°C
VOLATILE ORGANIC CMPDS:	6.45 lb./gal.,	774.00 grams/liter

### PREPARATION OF PARTS FOR COATING:

Parts must be free of dirt, oil and other soils to achieve good adhesion and defect-free coatings. The following are the recommended substrates and substrate preparations used with this coating:

**SUBSTRATES:** METAL (STEEL, STAINLESS, ALUMINUM), GLASS  
**PREPARATION:** THOROUGH DEGREASE, GRIT BLAST PREFERRED FOR BEST ADHESION

**PRIMERS OR BASECOATS:** NOT REQUIRED; XYLAN 4090 PRIMER OPTIONAL FOR IMPROVED CORROSION RESISTANCE

### PREPARATION OF COATING MATERIAL:

Mix containers thoroughly by shaking or stirring until any solid material on the bottom has been eliminated. Best results are obtained when the coating temperature is 65-90°F (18-32°C). Adjust viscosity, if necessary, using the recommended thinner and an accurate Zahn Viscosity Cup. Other viscosity cups may also be used. Add thinner in increments of 2% until proper viscosity is achieved. Low viscosity produces runs and sags and low film thickness. High viscosity produces poor sprayability and uneven appearance. Any dried coating or dirt may be removed by passing the coating through a 100-200 micron filter.

**APPLICATION VISCOSITY:** MATERIAL TYPICALLY APPLIES WELL AS SUPPLIED

**VISCOSITY ADJUSTMENT:** SOLVENT 27 AS NEEDED IN 2% INCREMENTS

**OTHER INFORMATION:** MIX WELL UNDER HIGH SPEED MIXER UNTIL ALL SOLID MATERIALS ARE INCORPORATED.

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**APPLICATION INFORMATION:**

This product is designed primarily for spray application. Consult with a Whitford representative if other types of application are being considered. Use an air spray gun with a siphon cup or pressure pot. Select a fluid nozzle and air cap that meet application needs. The Whitford Laboratory uses a Binks Model 2001 gun with a #66S fluid nozzle and a #66SD air cap. The air supply line must be equipped with traps to remove water and oil. Drain and service traps frequently.

Apply the dry film thickness as specified. The proper amount of coating should be achieved with two or three passes of the spray gun across the work piece. Apply the coating to a uniform, full wet appearance.

**DRY FILM THICKNESS:** 0.6 - 1.0 MIL (15 - 25 MICRONS) PER COAT

**CLEAN UP SOLVENT:** NMP/XYLENE AT 2:1 RATIO

**CURING THE COATING:**

In order to completely cure the coating, the SUBSTRATE TEMPERATURE must remain at the specified temperature for the entire bake schedule.

**FLASH OR AIR DRY:** 5 MIN 200°F (94°C). FLASH BETWEEN COATS IF APPLYING MULTIPLE COATS.

**BAKE SCHEDULE:** 30 MIN 428°F (220°C) PART METAL TEMPERATURE. CURE TEMPERATURE MAY BE DECREASED WITH LONGER DWELL TIME.

**COATING SPECIFICATIONS:**

Evaluate the coating according to the following specifications:

**PENCIL HARDNESS:** 4H **GLOSS:** LOW  
**CURE TEST:** APPLY ONE DROP OF NMP TO COATING SURFACE AND ALLOW TO STAND 10 MINUTES. FULL CURE ACHIEVED WHEN NMP HAS NO EFFECT. CONDUCTIVE CHARACTERISTICS CAN BE OBTAINED EVEN IF FULL CURE NOT DEVELOPED.

**ADHESION:** 1.0MM X-HATCH AND TAPE PULL = NO ADHESION LOSS

**OTHER:** USE TEMP 260°C CONTINUOUS; 315°C INTERMITTENT

**HANDLING & STORAGE:**

Keep containers tightly closed when not in use. Store between 40 to 95°F (4 to 35°C). Avoid breathing fumes during application or curing. Wash hands thoroughly before smoking or eating. Wear appropriate protective equipment while handling.

**SHELF LIFE:** 6 MONTHS (MIX 30-60 MINS MONTHLY TO MAINTAIN QUALITY)

**PREPARED BY:** KLM

**DATE:** 1 October 2004

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