

# ACA 30-016

## Bonds Metals to Polar and Non-Polar Plastics

Adhesive

HEAT  
ACTIVATED  
ADHESIVE

**PRODUCT DESCRIPTION**—ACA 30-016 is a heat activated latent cure waterborne adhesive. The adhesive will work with plastic over-molding or extrusion onto the metal. Pre-heating metal components to 200°F may be necessary in injection molding applications. The adhesive is unique in that it has a latent cure mechanism that cures the adhesive during heat activation providing salt-water and solvent resistance.

**TYPICAL USE**—ACA 30-016 is designed, to bond and non-polar and polar surfaces such as polypropylene to aluminum and other metals. It will also bond metals to a variety of plastics and TPE/TPV, including Santoprene™. Since there are so many choices of metals and plastics in this class, testing is necessary to establish that a good bond is provided with a given application.

**COATING METHOD**—The adhesive may be applied to metal foil by gravure printing, nip-fed reverse roll or wire wound bar coating methods. Brush, spray, or a paint roller may be used for unique shapes. The adhesive may be dried in a forced air oven at about 225° F. for a few seconds to yield an adhesive dry thickness between 0.3 and 0.75 mils. About 0.5 mils is a good place to start for adhesion evaluation. It may be necessary to run chill rolls on the oven output to avoid roll blocking and/or interleave a release liner.

Adhesive activation is accomplished at 400° F, 5 PSI, for 60 seconds. Conditions may differ depending upon the heat sealer and specific adherents.

ACA 30-016 is a dispersion and should be properly mixed prior to usage.

**CLEAN UP**— Wash the equipment with water to remove the wet adhesive. The dry coating may require a toluene wash. Toluene is a flammable solvent and must be used according to OSHA safety standards.

### WET ADHESIVE PROPERTIES

<u>Test</u>	<u>Value</u>	<u>Test</u>	<u>Value</u>
pH . . . . .	7 - 8	Percent VOC by volume . . . . .	0.45±0.1
Viscosity (cps) . . . . .	100-300	Percent water by weight . . . . .	53±2
wt./gal. (lbs.) . . . . .	.8.87	Percent water by volume . . . . .	57±2
Percent solids by weight . . . . .	44-48	Percent of VOC per gallon . . . . .	0.03±0.01
Percent solids by volume . . . . .	40-44	Pounds of VOC per gallon less water . . . . .	0.08±0.01
Percent VOC by weight . . . . .	0.40±0.1	Color . . . . .	Milky White Liquid

### DRY ADHESIVE PEEL VALUES (0.5 MIL COATING ON 8 MIL ALUMINUM)

<u>Substrates</u>	<u>AVG</u>	<u>PEAK</u>	<u>Substrates</u>	<u>AVG</u>	<u>PEAK</u>
Santoprene™ 121-67 (pli) . . . . .	22 . . . . .	27	GM Test Bar (pli) . . . . .	20 . . . . .	24
Cast Vinyl (pli) . . . . .	36 . . . . .	41	Polypropylene (pli) . . . . .	24 . . . . .	30

**NON-WARRANTY NOTICE**—Our recommendations, if any, for use of this product are based on tests believed to be reliable. The greatest care is exercised in the selection of our materials and in our manufacturing operations. We make no recommendation to use this product in any manner which conflicts with existing laws and/or patents and WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, REGARDING THIS PRODUCT OR ITS USE, INCLUDING MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE. THE MANUFACTURER IS NOT LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES OF ANY KIND.

