

# Technical Data Sheet

Engineering Materials

## CONAP<sup>®</sup> AD-1146

Adhesive Primer

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## CONAP® AD-1146

### Product Description

CONAP® AD-1146 is a solvent-borne, heat-cured primer for bonding liquid polyurethanes to various substrates during the curing process.

### Areas of Application

Primer for a bonding a wide variety of organic and inorganic materials including aluminum alloys, magnesium, iron, steel, glass, glass-fiber laminates, wood and leather

### Features and Benefits

- High strength / exceptional peel strength
- Excellent resistance to hydrolysis and environmental extremes

### Application Methods

- Spray
- Roller coating
- Doctor blade

### Transportation / Storage

Store below 25°C / 77°F in a dry controlled environment out of direct sunlight. This material should be suitable for use stored under these conditions in the original sealed containers for twelve (12) months from the date of shipment.

Keep containers tightly sealed to minimize evaporation.

Mix product thoroughly before use.

Failure to store the product as recommended above may lead to deterioration in product performance.

### Health / Safety

Refer to the Safety Data Sheet.

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### Typical Properties of Material as Supplied

Property	Conditions	Value		
		CONAP® AD-1146 Adhesive Primer	CONAP® AD-1146-C Adhesive Primer	CONAP® AD-1146-C-1 Adhesive Primer
Viscosity	25°C / 77°F	1500 – 2750 cP	125 – 225 cP	125 – 225 cP
Solids Content	1g - 3h - 105°C	23.0 – 25.0 %	13.0 – 15.0%	13.0 – 15.0%
Pounds / Gallon	25°C / 77°F	7.50	7.22	7.22
Appearance		Amber	Amber	Red
Volatile Organic Content	ASTM D3960	5.7 lbs. / gal.	6.2 lbs. / gal.	6.2 lbs. / gal.
Flash Point	ASTM D93	10°C / 50°F	10°C / 50°F	10°C / 50°F

## CONAP® AD-1146

### Surface Preparation

High-strength bonds can only be obtained if all surfaces to be bonded are free of moisture, dirt, rust, chemicals, and mold releases. In addition, surfaces to be bonded should be sandblasted, etched, or degreased. For complete details of surface preparation for various substrates, request the Surface Preparation Guide.

### Application / Curing Schedule

Apply one or two coats of CONAP® AD-1146 with a soft brush, allowing the adhesive to flow on the surface (two coats are required for CONAP® AD-1146-C and CONAP® AD-1146-C-1). Application may also be accomplished by spraying, roller coating, or by doctor blade. Air dry ½ hour between coats and one hour or longer after the final coat.

Prior to the application of polyurethane, activate the primer by baking at 82 - 93°C / 180 - 200°F for 1 - 2 hours.

For spray applications, dilute one part of CONAP® AD-1146 with up to two parts of CONAP® S-1 Solvent. CONAP® AD-1146-C and CONAP® AD-1146-C-1 may be diluted with 30-40% CONAP® S-1 solvent. Two double spray coats should be applied with ½ hour air dry between coats.

NOTE: For optimum results, primer dried film thickness should be 0.5 to 1.5 mils. Under no circumstances should film thickness be less than 0.5 mils. Since these coatings contain a solvent, it is important that all residual solvent in the film be removed to obtain high bond strengths. A drying period of ½ hour at 70°C (158°F) is sufficient to accomplish solvent evaporation.

When bonding urethanes to metals, the drying period can be part of the preheat cycle used to bring the mold and part to the desired curing temperature. Preheat temperatures of 90 - 100°C / 194 - 212°F for 2 to 3 hours are not detrimental. The adhesion of the urethane to the primer film is excellent, and the adhesion of the primer to the metal is improved.

The cure schedules above are based on time after the unit reaches the specified temperature and are recommendations only. The user is responsible for determining the optimum cure conditions for their application.

The above properties are typical values and are not intended for specification use.

ELANTAS PDG, Inc. warrants the chemical composition of its products within stated tolerances, but does not guarantee that a product will be appropriate for any particular application. Any recommendation, performance of tests or suggestion is offered merely as a guide and is not a substitute for a thorough evaluation by the user. No representative of ELANTAS PDG, Inc. has the authority to offer a warranty that a product will perform satisfactorily in manufacturing an article and no such representation should be relied upon.

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