

Technical Data Sheet

Electronic & Engineering Materials

CONAP® AD-1147

Adhesive Primer

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CONAP® AD-1147

Product Description

CONAP® AD-1147 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.

Typical Properties of Material as Supplied

Property	Conditions	Value			
		CONAP® AD-1147 Adhesive Primer	CONAP® AD-1147-1 Adhesive Primer	CONAP® AD-1147-C Adhesive Primer	CONAP® AD-1147-C-1 Adhesive Primer
Viscosity (cP)	25°C / 77°F	1500 – 2750	1500 – 2750	100 – 225	100 – 225
Solids Content (%)	1g - 3h - 105°C	23.0 – 25.0	23.0 – 25.0	13.0 – 15.0	13.0 – 15.0
Pounds / Gallon	25°C / 77°F	7.50	7.50	7.22	7.22
Appearance		Amber	Red	Amber	Red
Volatile Organic Content (lbs. / gal.)	ASTM D3960	5.7	5.7	6.2	6.2
Flash Point	ASTM D93	4°C / 39°F	4°C / 39°F	6°C / 42°F	6°C / 42°F

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Regulatory Information

Property	
RoHS Compliance	CONAP® AD-1147 Adhesive Primer, CONAP® AD-1147-1 Adhesive Primer, CONAP® AD-1147-C Adhesive Primer and CONAP® AD-1147-C-1 Adhesive Primer comply with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 (RoHS 2.0) as amended 31 March 2015.

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-1147 or CONAP® AD-1147-1 with a soft brush, allowing the adhesive to flow on the surface (two coats are required for CONAP® AD-1147-C and CONAP® AD-1147-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-1147 or CONAP® AD-1147-1 with up to two parts of CONAP® S-1 Solvent. CONAP® AD-1147-C and CONAP® AD-1147-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 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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