



PACACEL™ L75-200/CR-202

Description PACACEL™ L75-200/CR-202 is a two component, solventless polyurethane adhesive system which can be applied at room temperature. PACACEL™ L75-200/CR-202 offers fast cure, good metallized film adhesion and high run speed. PACACEL™ L75-200/CR-202 can be used for a wide range of applications at room temperature and below.

The two components of the adhesive are recommended to be used at room temperature of 70°F (21°C) or higher to ensure ease of pumping and homogeneous mixing. The use of heated hoses from the metering pumps to the application point should also be considered. If the adhesive and coreactant are stored at temperatures below 70°F (21°C), each component should be staged in a warmer area and given time to warm to room temperature. No preheating of the adhesive or coreactant before the meter/ mix/ dispense pump unit is required, unless the adhesive is below 70°F (21°C).

Typical Applications

Bottle label laminations.
Coffee pouches.
Condiment packaging.
Films should be printed with suitable ink for lamination.
Heat sensitive film laminations.
Lamination of PETP, PA, PP, PE, OPA and aluminium coating structures with and without sandwich printing.
Meat and cheese packaging.
Metallized snack food packaging.
Other application uses are possible, subject to performance trials and testing.
Shrink film label application for polypropylene, polyethylene, polyester and polystyrene films intended for plastic bottles.
Suggested for aggressive fill food stuffs.
The adhesive has a high heat and product resistance aggressive materials such as tomato concentrates, soaps and cosmetics.

Suggested Substrates

Aluminium oxide (AlOx) coated films.
Metalized films.
Metallized polyester (met-PET).
Other types of laminates are possible and should be tested.
Polyester (PET).
Treated coextruded film, (minimum 38 dyne/cm).
Treated polyethylene PE (including EVA-types).
Treated polypropylene (PP), (minimum 38 dyne/cm).

Typical Physical Properties	Adhesive	Coreactant	Unit
Component Type	NCO	OH	
Solids Content	100	100	%
Viscosity (25°C)	3600	1500	mPa·s
Weight/Gallon	8.95	9.01	lb
Mix Ratio by Weight (PBW)	100	45	
Mix Ratio by Volume (PBV)	100	45	
Wet Colour	<ul style="list-style-type: none"> • Colourless to Slightly Yellow • Yellow 	<ul style="list-style-type: none"> • Clear • Colourless to Slightly Yellow 	
Wet Appearance	<ul style="list-style-type: none"> • Clear to Hazy • Colourless to Slightly Yellow • Liquid 	<ul style="list-style-type: none"> • Colourless to Slightly Yellow • Liquid 	

*These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

Recommended Processing Guidelines

This system has to be used with a laminating machine designed for solventless lamination, equipped with a suitable adhesive application unit and a tension control system suitable for winding laminated films with low initial tack.

For trial runs it is recommended to prepare no more adhesive than can be used within 15-30 minutes. The mixing of the two components must be done in such way as to obtain a homogeneous mix.

For regular production, it is imperative to use a mixing and dosing device or pump, which continuously mixes the adhesive in the chosen mix ratio, controls the feeding to the application unit, and stops automatically in case of machine standstills.

When processing the adhesive, the precautionary measures applying to working with isocyanates have to be observed.

When processing the adhesive, the precautionary measures normally applied to work with isocyanate have to be observed. PACACEL™ Adhesive typically contains >2% monomeric MDI, as indicated in the MSDS / Safety Data Sheet and on the container label.

General Comments

Dow's Technical Service is ready to supply assistance in regards to the correct use of our products.

Interaction may occur with other components of the structure. Inks, retained solvents from any source, substrates, additives, coatings and the packed product are some of the components that may cause a property change of the total structure.

Before regular production, the end user is responsible to verify the suitability and performance properties of the total construction for the intended end use application, including the suitability of the process, construction and components.

The optimum performance of adhesion to substrates is achieved when substrates are corona treated in a range of ≥ 38 to ≤ 55 dyne/cm. This is substrate dependent.

The optimum performance of initial and final bonds is achieved when substrates are corona treated in a range of ≥ 38 to ≤ 55 dyne/cm. This is substrate dependent.

If used in conjunction with high slip films (COF <0.2), it is strongly recommended to verify that potential film property changes, due to the coating process and materials, are acceptable for the end use performance requirements.

The Coreactant or Catalyst must be used at the recommended mix ratio to achieve the desired properties.

Especially unfavorable substrate circumstances and combinations are: laminates containing polyamide (PA) film; of PA to high EVA content PE; white pigmented PE or combination of both; sealing films with excess slip, antifogging or antistatic additives.

Initial bonds are typically lower than bonds reached in 24 hours.

Alcohol and similar materials containing active hydrogen can react with this adhesive causing inadequate cure and unexpected performance.

This product is sensitive to moisture and should be stored under and transferred with dry nitrogen.

The adhesive layer must be separated from the food product by a functional barrier. Consult your Dow Technical Sales representative for suggestions and further information.

Other Coreactant or Catalysts are available for special uses. Consult your Dow Technical Sales representative for suggestions and further information.

Like all MDI-monomer containing adhesives, a potential monomer migration risk may interfere with the sealing properties of the sealant film.

Suggested Processing Temperature

Metering rolls: 40 to 50°C

Recommended Application Weight

Apply 1.3 to 2.0 g/m² dry, depending on substrate, printing and application.

Nip Temperature

For a good lamination adhesion bonds, nip temperature should be 49 to 71°C.

The rubber roll in the nip with hardness of 85 Shore A or greater is recommended.

Slitting / Rewind Time

Slitting and rewind is possible after 6.0 hr at 21°C (70°F).

Curing Time

Converters should verify appropriate cure times and conditions for their individual application.

The curing process is normally completed 2.0 day after lamination at 25°C and may be influenced by the type of film used, applied weight and by the storage conditions.

Approximate Pot Life

The mixed Pot Life of the product is approximately 30.0 min at 100% of solids content. It can vary based on environmental temperature and humidity conditions.

Do not mix more adhesive with Catalyst or Coreactant than will be used in 30.0 min.

Suggested Cleanup Guidelines

A proper cleaning procedure should be implemented and practiced as part of the machine operation.

If the machine is stopped for more than 30 minutes, the mixing device and the application rolls should be cleaned before the adhesive becomes insoluble due to progressive curing.

Ethyl acetate is a suitable solvent for cleaning. Other solvents such as MEK or Acetone may also be used.

If the adhesive has become cured on the application rolls, a suitable chemical cleaner may need to be used to remove the residue.

Storage and Shelf Life Guidelines

The expiry date of each product is the date reported on the label of the package.

The product may be stored up to stated expiry date provided that the product is stored in a dry and cool, well ventilated place between 5 - 35°C (41 - 95°F) unopened in the original shipping container.

Opened containers should be used as quickly as possible.

Opened shipping containers, especially those of NCO-containing products, should be fitted with desiccant drier tubes to minimize moisture contamination.

Disposal

Dispose in accordance with all local, state (provincial) or federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

FDA and/or European Food Contact Compliance

Due to the evolving nature of European and FDA food contact compliances, please contact Dow's Customer Information Group for the most up to date food contact compliance information. Call 800-258-2436 or use the web form at Dow.com for complete FDA and European food contact statements available.

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

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