



OPULUX™ 5001E/ CR 9-101

Description OPULUX™ 5001E/CR 9-101 is an acrylic Anti-Glare Coating designed for use as a two-component, VOC-compliant, waterborne coating for food packaging. It imparts matte optical qualities, i.e. gloss of less than 10 at 60° while maintaining contact transparency.

This product is usually applied as received. It may be diluted to 25-33% solids for some applications. Dilution below this level may cause mechanical stability and appearance problems on marginally treated films. For dilution, DI water or 80/ 20 DI Water/ Isopropyl Alcohol is recommended.

The principal use is as an Anti-Glare Coating for packaged foods to provide visibility on the shelf. It can also be used for imparting a soft touch feel and providing cushioning for delicate electronic parts.

Typical Applications Coating
Other application uses are possible, subject to performance trials and testing.

Typical Physical Properties	Adhesive	Coreactant	Unit
Component Type	OH	NCO	
Solids Content	31 to 33	100	%
Viscosity (25°C)	150 to 450	1600 to 4000	mPa·s
Weight/Gallon	8.37	--	lb
Volatile Solvent	- Isopropyl Alcohol - Water	--	
Mix Ratio by Weight (PBW)	100	2.0	
pH	8 to 9	--	
Wet Appearance	- Liquid - Milky White	- Clear - Liquid	
Freeze / Thaw Stability	None; protect from freezing	--	

Recommended Processing Guidelines

Dilution below this level may cause mechanical stability and appearance problems on marginally treated films.

Prior to adding the Coreactant, use a mechanical mixer to stir the Adhesive with enough speed until a vortex is formed, assuring that the adhesive is drawn from the sides and bottom of the mixing vessel.

Slowly charge the appropriate amount of coreactant at the edge of the vortex and continue mixing for 5 – 10 minutes.

General Comments

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

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.

Suggested Mixing Instructions

Adhesive should be agitated when adding Coreactant or Catalyst, using a mechanical mixer. Add the diluent with continued mixing until the mixture is uniform and at the desired application solids and/or viscosity.

Coreactant or Catalyst is moisture sensitive. Containers should not remain open for an extended period of time.

Recommended Application Weight

Apply 1.2 to 2.1 g/m² dry, depending on substrate, printing and application.

Drying Guidelines

An increasing temperature profile in multi-zone dryers is recommended.

Dry properly with sufficient amount of heated air at adjusted temperature range of 66 to 82°C to evaporate solvents at given production speed.

Curing Time

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

Full cure properties are typically achieved in 5.0 to 7.0 day at 21°C (70°F).

Approximate Pot Life

The mixed Pot Life of the product is approximately 8.0 hr at 25 to 33% 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 > 8.0 hr.

Suggested Application and Operating Guidelines		Adhesive	Unit
Application Method		Gravure	
Application Cylinder or Anilox Range		71 to 79	lines/cm
Application Cylinder or Anilox Volume		12.4 to 17.0	cm ³ /m ²
Application Solids Percent Range		25 to 33	%
Recommended Dilution Solvent	• Isopropyl Alcohol • Water		
Drying Web Temperature		66 to 82	°C
Cleaning Solvent	• Ethyl Acetate • Methyl Ethyl Ketone • Water		

Suggested Cleanup Guidelines

A proper cleaning procedure should be implemented and practiced as part of the machine operation. After finishing work, the equipment should be cleaned immediately with organic solvents like ketone or acetate, or similar organic solvents before the product's cure progresses too far.

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.

Protect from freezing. Product will become unusable.

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.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) or federal regulations. Contact your Dow Technical Representative for more information.

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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