



ADCOTE™ 545E/ COREACTANT F

Description ADCOTE™ 545E/ COREACTANT F is a solvent-based two-component polyurethane adhesive system for flexible packaging and industrial laminations.

ADCOTE™ 545E/ COREACTANT F adheres to a wide variety of substrates including cellophane, treated polyolefins, polyester, polyamide, aluminum foil, metallized and PVdC coated materials, and the treated heat sealable layers of co-extrusions.

ADCOTE™ 545E/ COREACTANT F provides optical clarity, high bond strength, and a high level of heat and chemical resistance.

Typical Applications Cable wraps.
Coffee pouches.
Condiment packaging.
Films should be printed with suitable ink for lamination.
Liquid packaging.
Meat and cheese packaging.

Suggested Substrates Metalized films.
Oriented polyamide film (OPA) or oriented nylon (BON).
Polyester (PET).
Polyvinylidene di-chloride (PVdC) coated substrates.
Reverse printed or unprinted substrates.
Structures containing aluminium.
Treated polyethylene PE (including EVA-types).
Treated polypropylene (PP), (minimum 38 dyne/cm).

Typical Physical Properties	Adhesive	Coreactant	Unit
Component Type	OH	NCO	
Solids Content	60	75	%
Viscosity (25°C)	3000	1800	mPa·s
Weight/Gallon	9.22	9.90	lb
Volatile Solvent	Ethyl Acetate	Ethyl Acetate	
Mix Ratio by Weight (PBW)	100	10	
Wet Appearance	<ul style="list-style-type: none"> • Clear • Liquid • Slightly Amber 	<ul style="list-style-type: none"> • Clear • Colourless to Slightly Yellow • Liquid 	

Recommended Processing Guidelines

The product can be diluted to the desired solid content with urethane grade solvents like: Methyl Ethyl Ketone (MEK), Ethyl Acetate (EAc), Acetone.

The quantity of solvent to be added for the different final solid is shown in the enclosed dilution table.

Dilution Table	Viscosity	Unit	Test Method
Viscosity (25°C)			Zahn Cup 2
Solids: 25%, Adhesive: 17 kg, Coreactant: 1.7 kg, Ethyl Acetate: 27 kg	17	sec	
Solids: 30%, Adhesive: 20 kg, Coreactant: 2.0 kg, Ethyl Acetate: 23 kg	20	sec	
Solids: 35%, Adhesive: 24 kg, Coreactant: 2.4 kg, Ethyl Acetate: 19 kg	29	sec	
Solids: 40%, Adhesive: 27 kg, Coreactant: 2.7 kg, Ethyl Acetate: 16 kg	45	sec	

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.

Recommended Application Weight

Apply 1.6 to 2.4 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.

Nip Temperature

For a good lamination adhesion bonds, nip temperature should be 60 to 82°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 1.0 to 2.0 day at 21°C (70°F).

Curing Time

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

Full cure properties are typically achieved in 7.0 to 10.0 day at 21°C (70°F).

It is necessary to wait until complete curing has taken place before the laminate is fit for use.

Approximate Pot Life

The mixed Pot Life of the product is approximately 8.0 hr at 30% of solids content. It can vary based on environmental temperature and humidity conditions.

Suggested Application and Operating Guidelines**Adhesive Unit**

Application Method	Gravure
Application Cylinder or Anilox Range	59 to 65 lines/cm
Application Solids Percent Range	30 to 40 %
Recommended Dilution Solvent	<ul style="list-style-type: none">• Ethyl Acetate Urethane Grade• Methyl Ethyl Ketone Urethane Grade• Toluene
Drying Web Temperature	66 to 82 °C
Lamination Nip Temperature	60 to 82 °C
Cleaning Solvent	Methyl Ethyl Ketone

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.

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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