



ADCOTE™ 37R972

Description

ADCOTE™ 37R972 is a very low heat activating, water based dispersion that is based on high molecular weight ethylene interpolymers. ADCOTE™ 37R972 exhibits good heat seal bonds when exposed to low temperature heat sealing conditions. It also has good clarity that may be achieved at low web drying temperatures. Because of its very low seal temperature, ADCOTE™ 37R972 is subject to blocking problems. Thorough evaluation of blocking must be done prior to using ADCOTE™ 37R972 that will be wrapped against anything except paper or special release coatings. Blocking tendency is a function of humidity as well as heat and pressure. Contact your Dow sales representative for more information.

ADCOTE™ 37R972 is suggested for use as a heat seal coating, pigment binder, laminating adhesive, primer or as a formulating base to produce other functional coatings. It can be applied to paper, various treated and untreated films and aluminum foil. ADCOTE™ 37R972 is formulated to seal to polyester, both treated and untreated polyethylene and polypropylene, aluminum foil, paper and PVDC coated glassine paper. As a formulating base, the dispersion is stable in most alkaline systems but may coagulate under acidic conditions.

Caution is needed when considering the use of ADCOTE™ 37R972 as a heat seal coating for spun bond PP or PET. Under some conditions, additives in ADCOTE™ 37R972 have been suspected to cause curling problems on the coated spun bond polypropylene (PP) or polyester (PET). Please contact your Dow representative for more information.

It is necessary to maintain the pH of 10 with ammonia water to avoid destabilization of the coating.

Typical Applications

Blending or modifying resin.
For food packaging, medical packaging and industrial applications.
Heat seal coating
Low temperature heat seal.
Medical packaging lidding.
Other application uses are possible, subject to performance trials and testing.

Suggested Substrates

Aluminium foil, converter grade.
Cellulosic film (cellophane).
Paper.
Polyester (PET).
Polyvinyl chloride (PVC).
Smooth finished calendared or coated paper.
Treated cast polypropylene (CPP) (minimum 38 dyne/cm).
Treated polyethylene (PE), (minimum 38 dyne/cm).
Treated polypropylene (PP), (minimum 38 dyne/cm).
Other types of laminates are possible and should be tested.

Typical Physical Properties	Nominal Value	Unit
Solids Content	45	%
Viscosity (25°C)	30 to 150	mPa·s
Density	0.98	g/cm³
Weight/Gallon	8.20	lb
pH	10	
Wet Appearance	• Liquid • Milky White	
Minimum Heat Seal Activation Temperature	66 to 107	°C

Recommended Processing Guidelines

This system can be applied by reverse gravure, direct gravure or with smooth roller system.

Stir well before use to insure uniformity.

The addition of 0.05 - 0.2% (based on wet dispersion weight) of Dow Chemical's Defoamer 100 is recommended to reduce foam creation and build-up. Contact your Dow Representative for more information.

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.

To ensure optimal block-resistant properties, be sure that the coated substrate is cooled over a chill roll to room temperature prior to subsequent rewind or sheeting operations.

Heat seal bond performance or blocking properties may be affected by inks, other coatings, retained solvents, or other substances which may offset in a roll or a sheet.

Recommended Application Weight

Apply 2.4 to 4.9 g/m² dry, depending on substrate, printing and application.

Drying Guidelines

Cool the coated material down below 40°C to avoid blocking in the reel or sheet stack.

Dry properly with sufficient amount of heated air at adjusted temperature range of 60 to 100°C to evaporate water at given production speed.

Suggested Application and Operating Guidelines**Nominal Value Unit**

Application Method

- Gravure
- Meyer Rod

Application Solids Percent Range

38 to 43 %

Recommended Dilution Solvent

Deionized Water

Drying Web Temperature

66 to 77 °C

Rewind Temperature

< 38 °C

Suggested Cleanup Guidelines

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

After finishing production, the equipment should be cleaned immediately with room temperature flushing water.

If the gravure cylinder has dried in too much, scrub with a brass or fiber brush with the aid of room temperature organic solvents or warm toluene or warm hydrocarbon solvents.

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.

WARNING: Keep product materials away from freezing temperatures. Material will become unusable or may precipitate.

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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- use as a critical component in medical devices that support or sustain human life; or
- use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction.

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