

ADCOTE™ 545 Laminating Adhesive

Description and Features

Adcote 545 adhesive is the polyester component of a two component laminating adhesive which requires the use of an isocyanate coreactant. This polyester in conjunction with various isocyanate terminated coreactants functions as an adhesive for flexible packaging and industrial laminations.

Adcote 545 adhesive adheres to a wide variety of substrates including cellophane, treated polyolefins, polyester, polyamide, aluminum foil, paper, metallized and PVDC coated materials, and the treated heat-sealable layers of coextrusions.

Adcote 545 adhesive provides optical clarity, high bond strength, and a high level of heat and chemical resistance.

Typical Properties*

Solids 66%

Viscosity 3500 cps @ 25°C

Weight/Gallon 8.8 lb

Solvents Methyl ethyl ketone Coreactant Coreactant F**

Mix Ratio 90 pbw Adcote 545/10 pbw Coreactant F

Diluents Methyl ethyl ketone, toluene, or urethane grade ethyl acetate

Shelf Life 360 days (unopened containers)

*These items are provided for general information only. They are approximate values and are not considered part of a product specification.

Typical Uses

The principal uses for Adcote 545 adhesive with coreactant are in meat and cheese packaging, coffee pouches, condiment packaging, cable wraps, and liquid packaging.

Safety, Handling and Storage

- Store in cool, dry, well ventilated area away from heat and ignition sources. Keep container tightly closed.
- Hot organic chemical vapors can suddenly and without warning combust when mixed with air.
 Ignition can occur at typical elevated temperature process conditions. Please evaluate such processes to assure safe handling conditions.
- Support and ground containers before opening, dispensing, mixing, pouring, or emptying. Open with non-sparking tools. If container is warm, open bung slowly to release the internal pressure.

^{**}Other coreactants are available for special uses. Consult your Rohm and Haas account manager for further information.

- Wash thoroughly after handling. Wash contaminated goggles, face shield, and gloves. Professionally launder contaminated clothing before re-use.
- ATTENTION! Container can be hazardous when empty. Follow label warnings even after container is empty. Do not use heat, sparks, open flames, torches or cigarettes on or near empty containers. Do not reuse empty container without professional cleaning.
- Refer to Material Safety Data Sheet for more information.

Alcohol and similar materials containing active hydrogen can react with Adcote 545 adhesive causing inadequate cure.

Adcote 545 can react or interact with other components of laminations. Retained solvents, slip additives, antiblock agents, and contaminated solvents are some of the components that may cause property changes of the film and/or adhesive.

Recommended Operating Conditions

Application Method Direct gravure
Application Cylinder 150-165 line
Application Solids 30-40%

Dry Adhesive Weight 1.0-1.5 lb/ream
Drying Web Temperature 150-180°F
Lamination Temperature 140-180°F

Cure Time 7-10 days at 70°F
Slitting/Rewinding Time 4-8 hours at 70°F
Cleaning solvent Methyl ethyl ketone

Dilution Table for 100 Lb. Mix

| | Adcote | Coreactant | |
|----------|----------|------------|----------|
| % Solids | 545 | F | Thinner |
| 40 | 53.8 lbs | 6.0 lbs | 40.2 lbs |
| 35 | 47.0 lbs | 5.2 lbs | 47.8 lbs |
| 30 | 40.0 lbs | 4.5 lbs | 55.5 lbs |

Adcote is a registered trademark of Rohm and Haas Company.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and method of use of our products are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.

Suggestions for uses of our products or the inclusion of descriptive material from patents and the citation of specific patents in this publication should not be understood as recommending the use of our products in violation of any patent or as permission or license to use any patents of the Rohm and Haas Company.

Visit us at http://www.rohmhaas.com/AdhesivesSealants

Rohm and Haas Company, Midwest Technical Center, 2531 Technology Drive, Suite 301, Elgin, IL 60124

Phone: 847-649-3800 Fax: 847-649-3760

Rohm and Haas Food and Drug Opinion

Product Name: ADCOTE 545

| Regulation Number | Complies | Limitations | Opinion Date |
|-------------------|----------|-------------|--------------|
| 21CFR175.105 | L | 1 | Mar 23, 2001 |
| 21CFR175.300 | L | 1 | Mar 23, 2001 |
| 21CFR175.320 | L | 1 | Mar 23, 2001 |
| 21CFR176.170 | L | 2 | Mar 23, 2001 |
| 21CFR176.180 | L | 1 | Mar 23, 2001 |
| 21CFR177.1630 | L | 1, 3 | Mar 23, 2001 |

Legend:

Yes, this product is cleared with limitations as noted.

| SOLVENT MUST BE COMPLETELY EVAPORATED DURING |
|---|
| DRYING AND CURING. |
| 1) SOLVENT MUST BE COMPLETELY EVAPORATED DURING |
| CURING AND DRYING. 2) PROVIDED THAT THE FOOD CONTACT |
| SURFACE OF THE PAPER OR PAPERBOARD COMPLIES WITH |
| THE EXTRACTIVES LIMITATIONS IN 21CFR176.170 PARAGRAPH |
| (C). |
| IN ACCORDANCE WITH 21CFR177.1630, PARAGRAPH (E)(3). |
| |

Regulations:

21CFR175.105 **ADHESIVES** 21CFR175.300 **RESINOUS AND POLYMERIC COATINGS** 21CFR175.320 RESINOUS AND POLYMERIC COATINGS FOR POLYOLEFIN 21CFR176.170 COMPONENTS OF PAPER AND PAPERBOARD IN CONTACT WITH AQUEOUS AND FATTY FOODS COMPONENTS OF PAPER AND PAPERBOARD IN CONTACT 21CFR176.180 WITH DRY FOOD 21CFR177.1630 POLYETHYLENE PHTHALATE POLYMERS

Disclaimer:

This information relates specifically to this product. We believe this information to be accurate and reliable as of this date. We recommend that our customers make their own determination on the suitability of this product for their particular application. We cannot guarantee that the indirect food additives/food-contact status of this product will remain unchanged indefinitely; therefore we recommend that you periodically verify its status.

Rohm and Haas Food and Drug Opinion

Name: COREACTANT (TM) F

| Regulat | t ion Com | plies | Opinion Date | Limitations |
|-------------------------------------|---|-------|-----------------|-------------|
| 21CFR175.1 | 105 | Y | 02/29/2008 | |
| Legend: | | | | |
| L | Yes, this product is cleared with limitations noted | | | |
| N | No, this product is not cleared | | | |
| Υ | Yes, this product is cleared. | | | |
| Α | Affirmed as compliant based on migration studies. | | | |
| Regulations: 21CFR175.105 Adhesives | | | | |

Disclaimer:

This information relates specifically to this product. We believe this information to be accurate and reliable as of this date.

We recommend that our customers make their own determination on the suitability of this product for their particular application.

We cannot guarantee that the indirect food additives/food-contact status of this product will remain unchanged indefinitely; therefore we recommend that you periodically verify its status.