



ADCOTE™ 506-40 Laminating Adhesive

Description and Features

Adcote 506-40 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 506-40 adhesive adheres to polyester, aluminum foil, and the treated side of polyethylene and polypropylene.

Adcote 506-40 adhesive provides optical clarity, high bond strength, and excellent heat and chemical resistance.

Typical Properties*

Solids	40%
Viscosity	450 cps @ 25°C
Weight/Gallon	7.8 lb
Solvents	Methyl Ethyl Ketone
Coreactant	Coreactant F or Coreactant 9L10
Mix Ratio	100 pbw Adcote 506-40/ 5 pbw Coreactant F 100 pbw Adcote 506-40/4 pbw Coreactant 9L10
Diluents	Methyl Ethyl Ketone, Toluene, or Urethane Grade Ethyl Acetate
Shelf Life	60 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 506-40 adhesive with coreactant are in retortable applications and high demand aluminum foil laminations.

Safety, Handling and Storage

- Store in cool, dry, well ventilated area.
- Follow good manufacturing and handling practices.
- 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 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 506-40 adhesive causing inadequate cure.

Adcote 506-40 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	85-130 line
Application Solids	20-30%
Dry Adhesive Weight	1.5-3.0 lbs./ream
Drying Web Temperature	150-180°F
Lamination Temperature	180-250°F
Cure Time**	7-14 days at 70°F
Slitting/Rewinding Time	12-24 hours at 70°F
Cleaning solvent	Methyl Ethyl Ketone

**Recommend post curing at 120-130°F for 3-5 days.

Dilution Table for 100 Lb. Mix

	Adcote	Coreactant	
% Solids	506-40	F	Thinner
30	68.6 Lb	3.4 Lb	28.0 Lb
25	57.1 Lb	2.9 Lb	40.0 Lb
20	45.7 Lb	2.3 Lb	52.0 Lb

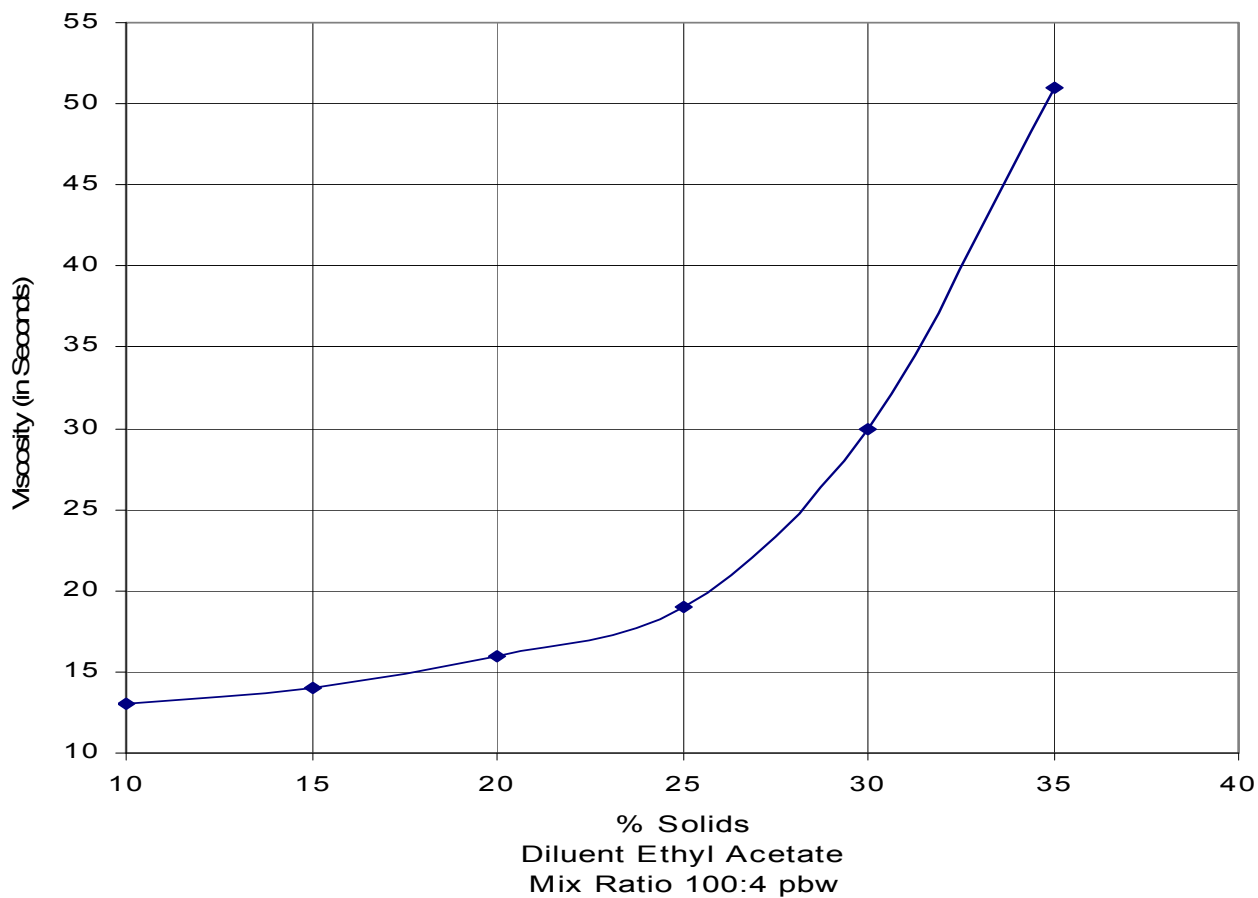
High molecular weight polyesters that are used in solution adhesives like Adcote 506-40 have tendency to form a reversible structure in solution with time. This structuring is accelerated when the adhesive is exposed to temperatures below 50°F. The structuring is reversible if heat and shear is applied to the adhesive. We recommend placing the container of adhesive in a steam cabinet, allowing venting of the container and heating to 110-140°F. After the adhesive reaches the proper temperature, mix the adhesive in the container for 1-3 hours under moderate shear. Use of a disperser or "Cowles" type blade will shorten the time needed.

Caution must be taken because of the flammability of the solvents used in the adhesive. Please review MSDS for hazards associated with the adhesive.

Attempting to redisperse without heat may reduce the apparent viscosity, but not result in a homogeneous mix. Before using the adhesive, check, to make sure that all resin has returned to a true solution and no gels remain.

Adcote 506-40

#2 Zahn Cup @ 77F



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 506-40

Regulation Number	Complies	Limitations	Opinion Date
21CFR175.105	L	1	Aug 01, 2000
21CFR177.1390	L	1	Aug 01, 2000
Paragraph (c)(2)(v)(a and b)			
21CFR177.1395	L	1	Aug 01, 2000

Legend:

L Yes, this product is cleared with limitations as noted.

Limitations:

1 SOLVENT MUST BE COMPLETELY EVAPORATED DURING DRYING AND CURING.

Regulations:

21CFR175.105 ADHESIVES
 21CFR177.1390 LAMINATE STRUCTURES FOR USE AT TEMPERATURES OF 250F AND ABOVE
 21CFR177.1395 LAMINATE STRUCTURES FOR USE AT TEMPERATURES BETWEEN 120F AND 250F

Name: COREACTANT (TM) F

Regulation	Complies	Opinion Date	Limitations
21CFR175.105	Y	02/29/2008	

Legend:

L Yes, this product is cleared with limitations noted
 N No, this product is not cleared
 Y Yes, this product is cleared.
 A 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.

Rohm and Haas Food and Drug Opinion

Name: COREACTANT 9L10

Regulation	Complies	Opinion Date	Limitations
21CFR175.105	Y	05/12/2004	
21CFR177.1390	L	08/16/2005	<ul style="list-style-type: none"> ▪ SOLVENT MUST BE COMPLETELY EVAPORATED DURING DRYING AND CURING. ▪ PROVIDED THAT IT IS NO MORE THAN 14% OF THE WEIGHT OF THE CURED ADHESIVE. ▪ Compositional compliance with 21 CFR 177.1390 requires the use of another component that is listed in the same paragraph of 21 CFR 177.1390. In other words, a component listed in (c)(2)(v) may NOT be used with a component listed in (c)(2)(vi), unless migration studies have affirmed the combination to be in compliance with the FDA regulations. This requirement for use of components in the same section of 21 CFR 177.1390 applies to the use of this material in compliance with 21 CFR 177.1395 as well.
Paragraph (c)(2)(v)(c)			
21CFR177.1390	A	02/08/2008	<ul style="list-style-type: none"> ▪ Adcote 76X159 and COREACTANT 9L10, used at a ratio of 100:8, at 2.9 lb/ream, and cured for 8 days at 120F and 3 days at room temperature, may be used as an adhesive layer in multilaminate food packaging materials with aqueous food types with a food contact layer of at least 3 mil cast polypropylene under all conditions of use in full compliance with the Federal Food, Drug and Cosmetic Act.
21CFR177.1390	A	02/08/2008	<ul style="list-style-type: none"> ▪ The combination of Adcote 812 and COREACTANT 9L10, when used at a ratio of 100:7.3, at 2.74 pounds per ream (4.5 g per meter), and cured for five days at 115F (46C), may be used as an adhesive layer in multilaminate food packaging materials with aqueous and acidic food types provided that the adhesive layer is separated from food by a 2 mil (50 micron) polypropylene film (or equivalent or better barrier properties) in compliance with the Federal Food, Drug, and Cosmetic Act.
21CFR177.1390	A	02/08/2008	<ul style="list-style-type: none"> ▪ The combination of Adcote 812 and COREACTANT 9L10, used at a ratio of 100:8, at a maximum of 4 g/m² (2.4 lb/ream), cured at 49°C (120°F) for 10 days, and has as a food contact layer 75 micron (3 mil) of cast polypropylene, may be used with no limitations as to temperature or food-types in compliance with the United States Federal Food, Drug, and Cosmetic Act. The combination of Adcote 812 and COREACTANT 9L10, used at a ratio of 100:8, at a maximum of 4 g/m² (2.4 lb/ream), cured at 49°C (120°F) for 4 days, and has a 25 micron (1 mil) food contact layer, may be used at all temperatures with aqueous and acidic food types in compliance with the United States Federal Food, Drug, and Cosmetic Act.
21CFR177.1390	A	02/08/2008	<ul style="list-style-type: none"> ▪ The combination of Adcote 842 and COREACTANT 9L10, when used in a ratio of 100:8.0 and cured for seven days at 115F (46C), may be used as an adhesive layer in multilaminate food packaging materials under high temperature, heat-sterilized (e.g., over 212F (100C)) and less severe conditions, with all food types provided that the adhesive layer is separated from food by a 3 mil (76 micron) polypropylene layer (or equivalent or better barrier properties) in compliance with the Federal Food, Drug, and Cosmetic Act.
21CFR177.1395	L	08/16/2005	<ul style="list-style-type: none"> ▪ In accordance with the limitations as described under 21CFR177.1390 above.

Legend:

L	Yes, this product is cleared with limitations noted
N	No, this product is not cleared
Y	Yes, this product is cleared.
A	Affirmed as compliant based on migration studies.

Regulations:

21CFR175.105	Adhesives
21CFR177.1390	Laminate structures for use at temperatures of 250F and above
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21CFR177.1390	Laminate structures for use at temperatures of 250F and above
21CFR177.1395	Laminate structures for use at temperatures between 120F and 250F

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