



Covinax 416-00

PRODUCT DESCRIPTION

Covinax 416 is a surfactant stabilized vinyl acrylic copolymer emulsion developed for low temperature pressure sensitive adhesive applications requiring a service temperature range of room temperature to -10° F. Covinax 416 has shown a wide range of adhesion to synthetic films, wax coated paper and board, metal, and ink coated surfaces at temperatures as low as -10° F. It has also found use as a smooth peel ultra removable, when crosslinked with an external crosslinker. Covinax 416 has a very soft polymer backbone, which allows it to peel smoothly without zippering even when crosslinked.

Covinax 416-00 is FDA compliant under 21CFR 175.105 and 21CFR 176.180.

PHYSICAL PROPERTIES

Polymer Type:	Vinyl acrylic	Freeze/Thaw Stability:	Unstable
Protective System:	Anionic	Weight Per Gallon:	8.24
Viscosity (cps):	400 Max. (LVF, Spindle #2/30RPM/77° F)	Color:	White
Percent Solids:	58.5 – 60.5	Shelf Life:	8 months
pH:	6.00 – 8.00		
Glass Transition Temperature (Tg): (DSC):	-57.6° C		
	(DMA): -45.5° C		

PERFORMANCE PROPERTIES

A 1 mil (28g/M²) dry film of Covinax 416-00 cast directly onto 1 mil thickness polyester film will exhibit the following average performance properties when tested on #304 stainless steel, which has a #3 surface finish.

Test	Typical Values	Specification Range
180° Peel Adhesion ¹ (lbs)	1.15	1.00 minimum
178° Shear Adhesion ² (minutes)	25	10 minimum
Loop Tack ³ (lbs)	2.00	1.00 minimum

FDA Compliance: 21CFR 175.105
21CFR 176.180

- 1 Franklin International 03QC5002, 30 minute dwell.
- 2 Franklin International 03QC5003, 0.25 square inch, 500 gram load, 10 minute dwell.
- 3 Franklin International 03QC5004, 1 square inch contact, 1 second dwell.

**Covinax 416****AVERAGE APPLICATION PROPERTIES**

TEST/SUBSTRATE	Facestock: Paper				Facestock: BOPP Film			
	LDPE	HDPE	Vinyl	Corrugate	LDPE	HDPE	Vinyl	Corrugate
180° peel (lb/lineal inch width) 30 minute dwell	0.960A	1.190A	PT	0.710A	0.480A	0.520A	1.730A	0.720A
90° peel (lb/lineal inch width) 30 minute dwell	0.630A	PT	PT	0.530A	0.690A	0.920A	1.670L	0.530FP
Loop Tack (lb)	1.46	1.83	2.17	0.95	1.34	1.41	1.78	0.84

	Facestock: Paper	Facestock: BOPP Film	Facestock: Mylar
178° Shear (500 g, 0.25 in ²) (minutes)	107C	18C	25C
SAFT Testing (min/temp °C)	114.0/134.4 °C	51.0/52.2 °C	60.1/60.3 °C
Substrate: Stainless Steel		Coat weight: 1.0 mil (+/-0.1 mil)	

C = Cohesive A = Adhesive PT = Paper Tear L = LEGGY FP = Fiber pick

ADDITIONAL INFORMATION**Yellowing (Colorimeter "b" value)**

UV Exposure (1 week) Mylar		Heat Exposure (1 week @ 140° F) Paper	
Before	After	Before	After
4.71	6.99	3.43	4.12

The data provided in this Product Data Sheet represents typical physical and/or performance values for the product under a given set of testing conditions. The ranges or values are not specifications. Specifications are set based on statistical analysis of measurements made by the quality control laboratory on production material and will accurately reflect production capabilities. This data should be used as a guide for product selection only.

Important Notice to Purchaser: Our recommendations, if any, for use of this product are based on tests believed to be reliable. The greatest care is exercised in the selection of our materials and in our manufacturing operations. However, we make no recommendation to use this product in any manner which conflicts with existing laws and/or patents and WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, REGARDING THIS PRODUCT OR ITS USE, INCLUDING MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, THE MANUFACTURER IS NOT LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES OF ANY KIND. Revised 07/16/08.

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