



Covinax 418-00

PRODUCT DESCRIPTION

Covinax 418-00 is a surfactant stabilized acrylic copolymer emulsion developed for permanent pressure sensitive adhesive applications requiring a wide service temperature range. It can be used for labeling in both warm and cold application temperatures, and the low temperature performance can be improved by blending in small quantities of Covinax 258-00. Covinax 418-00 has a good balance of properties, and has good adhesion to plastics and paper.

Covinax 418-00 is FDA compliant under 21CFR 175.105, 21CFR 176.170 and 21CFR 176.180.

PHYSICAL PROPERTIES

| | | | |
|---|---------------------------------------|-------------------------------|----------|
| Polymer Type: | Acrylic | Freeze/Thaw Stability: | Unstable |
| Protective System: | Anionic/Nonionic | Weight Per Gallon: | 8.6 |
| Viscosity (cps): | 400 Max (RVF, Spindle #2/50 RPM/77°F) | Color: | White |
| Percent Solids: | 58.3-61.9 | Shelf Life: | 6 months |
| pH: | 4.90-5.90 | | |
| Glass Transition Temperature (T_g): (DSC): | -48.3 °C | | |
| | (DMA): -33.3 °C | | |

PERFORMANCE PROPERTIES

A 1 mil (28g/M²) dry film of Covinax 418-00 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) | 2.70 | 2.10 minimum |
| 178° Shear Adhesion ² (minutes) | 55 | 30 minimum |
| Loop Tack ³ (lbs) | 2.90 | 1.70 minimum |

FDA Compliance: 21CFR 175.105
21CFR 176.170
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 418-00****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 | 1.396A | 0.819A | 4.847PT | 2.066FP | 1.220A | 1.090A | 2.860T | 2.530C |
| 90° peel (lb/lineal inch width) 30 minute dwell | 1.096A | 0.861A | 2.135PT | 1.418FP | 1.080A | 0.974A | 3.878T | 1.153A |
| Loop Tack (lb) | 1.43 | 1.69 | 3.96 | 2.51 | 1.39 | 1.73 | 3.31 | 4.46 |

| | Facestock: Paper | Facestock: BOPP Film | Facestock: Mylar |
|---|---------------------|-----------------------------------|---------------------|
| 178° Shear (500 g, 0.25 in ²) (Minutes) | 94C | 48C | 55C |
| SAFT Testing (min/temp° C) | No Failure | 56/62° C | 84/83° C |
| Substrate: Stainless Steel | | Coat weight: 1.0 mil (+/-0.1 mil) | |

C = Cohesive A = Adhesive PT = Paper Tear 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 |
| 0.93 | 3.15 | -1.54 | 2.59 |

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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