

Covinax 169-00

High Tack Packaging Adhesive

Covinax 169-00 is a polyvinyl alcohol stabilized vinyl acrylic copolymer emulsion developed for a variety of permanent pressure sensitive applications requiring very aggressive tack. It exhibits outstanding adhesion to most synthetic films, including treated and untreated polyethylene and polypropylene, Tyvek and Cryovac. It performs well in low temperatures and is widely used in packaging applications both formulated and as a straight polymer. Covinax 169-00 can be formulated into a wash-away adhesive by the addition of a nonionic surfactant. The polyvinyl alcohol colloid allows easy cleanup and imparts excellent machining. It can be applied with a knife, rod, roller coater or extruded in beads for various packaging applications. Covinax 169-00 is FDA compliant under 21CFR 175.105.



PHYSICAL PROPERTIES

Polymer Type: Vinyl Modified Acrylic Copolymer

Protective System: Polyvinyl alcohol

Color: White

Viscosity (cps): 1600 - 3400 (LVF, Spindle #4/60RPM/77° F)

Percent Solids (%): 58.0 - 60.0

pH: 4.5 - 5.5

Weight Per Gallon: 8.5

Glass Transition Temperature (T_g): (DSC): -42.8° C

PERFORMANCE PROPERTIES

A 1 mil (28g/m²) dry film of Covinax 169-00 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 (lb) | 3.6 | 3.0 minimum |
| 178° Shear Adhesion ² (minutes) | 27 | 5 minimum |
| Loop Tack ³ (lb) | 3.2 | 2.5 minimum |
| Minimum Application Temperature: | 10°F to 20°F | N/A |
| Service (Use) Temperature: | -20°F to 250°F | N/A |

NOTE: Minimum application and service temperatures are dependent upon many factors including face stock, adhesive coat weight, adhesion, and intended application. We can only offer an estimate based on the T_g and typical performance properties of the adhesive.

FDA Compliance: 21CFR 175.105

¹Franklin International 03QC5002, 30 minute dwell.

²Franklin International 03QC5003, 0.25 square inch, 500 gram load, 10 minute dwell.

³Franklin International 03QC5004, 1 square inch contact, 1 second dwell.

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 | PT | PT | PT | PT | 3.5 C | 3.7 C | 3.8 C | PT |
| 90° peel (lb/lineal inch width) 30 minute dwell | 2.1 A | 2.4 A | 6.0 T | 1.5 A | 1.6 A | 1.7 A | 4.9 A | 1.4 A |
| Loop Tack (lb) | 2.9 | 4.3 | 6.5 | 3.1 | 1.6 | 3.6 | 4.6 | 1.5 |

| | Facestock: Paper | Facestock: BOPP Film | Facestock: Mylar |
|---|---------------------|-------------------------|---------------------|
| 178° Shear (500 g, 0.25 in ²) (minutes) | 27 C | 34 C | 27 C |
| SAFT Testing (min/temp° C) | 39/62.3° C | 27.3/62.3° C | 31.3/66.3° C |
| Substrate: Stainless Steel Coat weight: 1.0 mil (+/-0.1 mil) | | | |

A = Adhesive C = Cohesive FP = Fiber pick PT = Paper Tear T = Transfer

ADDITIONAL INFORMATION

Yellowing (Colorimeter “b” value)

| UV Exposure (1 week) Mylar | | Heat Exposure (1 week @ 140° F) Paper | |
|----------------------------------|-------|---|-------|
| Before | After | Before | After |
| 4.64 | 7.02 | 2.60 | 4.35 |

STORAGE AND HANDLING

Shelf life: Best if used within four months of date of manufacture. Mix before use for best results. Product is not freeze/thaw stable.

For additional questions, Franklin’s technical service team is available at 1.800.877.4583. **24/7** technical service is available online at www.franklinadhesivesandpolymers.com.

IMPORTANT NOTICE TO CUSTOMER:

The recommendations and data contained in this Product Data Sheet for use of this product are based on information Franklin believes to be reliable. They are offered in good faith without guarantee, as conditions and methods of use of our product by Customer are beyond Franklin’s control. Customer must determine the suitability of the product for a particular application before adopting it on a commercial scale.

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