

Pressure Sensitive Adhesives

# Covinax 234-01 DEV REACH Compliant Non-Blush PSA

**Covinax 234-01 DEV** is an APE-free, formaldehyde-free high performance copolymer specifically designed for optically clear, moisture resistant removable pressure sensitive applications. This product has been formulated to adhere to multiple substrates. It provides smooth and clean removability with no adhesion build over time. Covinax 234-01 DEV can be used for wine and beverage labels, window graphics, reseal food packaging, surface protection adhesives, and other label and tape applications.

Covinax 234-01 DEV provides the best water blush and water whitening resistanc among aqueous adhesives. It has a good balance of peel and tack adhesion and offers excellent cohesive strength. In addition, the adhesive can be repositioned multiple times without loss of adhesion and will remain optically clear when exposed to UV and moisture.



### **PHYSICAL PROPERTIES**

Polymer Type: Styrene-acrylic Copolymer

Protective System: Anionic/Nonionic Surfactants

Color: White

Viscosity (cps): 75 - 500 cps (RVF, Spindle #3/100 RPM/77°F)

Percent Solids (%): 44.0 - 53.0

**pH:** 5.0 - 7.8

Weight Per Gallon: 8.5

Glass Transition Temperature (Tg): (DSC): -37.3°C

#### PERFORMANCE PROPERTIES

A 1 mil (28g/m²) dry film of Covinax 234-01 DEV 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	Target Range
180° Peel Adhesion¹	1.3 lb (590 g)	0.7 – 1.8 lb (318 - 816 g)
Loop Tack³	1.5 lb (680 g)	1.3 - 2.5 lb (590 - 1134 g)
178° Shear Adhesion <sup>2</sup>	270 minutes	>90 minutes

Minimum Application Temperature:>32°FN/AService (Use) Temperature:20°F to 250°FN/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 Tg and typical performance properties of the adhesive.



FDA Compliance: 21 CFR 175.105

#### STORAGE AND HANDLING

**Shelf life:** Best if used within twelve 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 <a href="https://www.franklinadhesivesandpolymers.com">www.franklinadhesivesandpolymers.com</a>.

#### **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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<sup>&</sup>lt;sup>1</sup>Franklin International 03QC5002, 30 minute dwell.

<sup>&</sup>lt;sup>2</sup>Franklin International 03QC5003, 0.25 square inch, 1000g load, 10 minute dwell.

<sup>&</sup>lt;sup>3</sup>Franklin International 03QC5004, 1 square inch contact, 1 second dwell.



Wood Adhesives Pressure Sensitive Adhesives Specialty Polymers

#### <u>Technical Information Sheet 81507</u>

## Pressure Sensitive Adhesives

Determining Developmental Products' Specification Ranges

This Technical Information Sheet reviews how specification ranges are created for new developmental adhesives and polymers (labeled as "DEV") from initial production through commercialization (removal from DEV status).

Franklin utilizes the Stage Gate Process for developing new polymers and adhesive formulations. Customer requirements are entered into the initial stage of the process. During the developmental process, lab and pilot samples are normally created and tested by Franklin technical personnel as well as by the customer for approval. These samples are labeled as experimental (EXP) batches.

In order for the EXP product to move to Franklin production, at least three replicated lab and/or pilot batches are made. From these batches, <u>target ranges</u> are calculated using 3 sigma limits and are incorporated into Franklin's QC and Production System, creating a DEV product.

Once at least eight consecutive production batches are made without changes to the formulation or process, the <u>product specifications</u> are set based on these batches, the product is no longer developmental and the DEV designation is removed.

In most cases, target ranges will change from initial production batches through the commercialization process. Often this results in a shift, and possibly a broadening, of the specification ranges. The customer is notified of these changes.

DGP 11/12/2018