

Covinax 258-04

Freezer Grade PSA

Covinax 258-04 is a coater-ready, surfactant stabilized acrylic copolymer developed for use as a freezer grade pressure sensitive adhesive. It has extremely low glass transition temperature allowing it to adhere to frozen surfaces and its aggressive tack permits application through thin layers of moisture or frost. Covinax 258-04 can also be blended with other polymers to impart low temperature properties to those polymers or to develop products which are all temperature grades. It is transfer coatable on slot-die, rod or roll coaters. Covinax 258-04 is FDA compliant under 21CFR175.105.



PHYSICAL PROPERTIES

Polymer Type: Acrylic

Protective System: Anionic

Color: White

Viscosity (cps): 550 - 850 (RVF, Spindle #3/50/77° F)

Percent Solids (%): 57.0 - 59.0

pH: 4.0 - 5.0

Weight Per Gallon: 8.5

Glass Transition Temperature (Tg): (DSC): -70.1° C

PERFORMANCE PROPERTIES

A 1 mil (28g/m²) dry film of Covinax 258-04 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)	1.1	0.70 minimum
178° Shear Adhesion ² (minutes)	20	15 - 85
Loop Tack ³ (lb)	2.8	2.00 minimum
Minimum Application Temperature:	-20°F to -10°F	N/A
Service (Use) Temperature:	-40°F to 200°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 Tg and typical performance properties of the adhesive.

FDA Compliance: 21CFR 175.105

¹Franklin International 03QC5002, 30 minute dwell.

²Franklin International 03QC5003, 1.00 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	0.73A	0.71A	1.1A	0.73A	1.2A	1.6C	1.5C	1.1C
90° peel (lb/lineal inch width) 30 minute dwell	0.70A	0.71A	1.0A	0.41A	1.0A	1.1A	1.4A	0.88C
Loop Tack (lb)	1.6	1.2	1.7	1.5	1.8	2.1	2.1	1.6

	Facestock: Paper	Facestock: BOPP Film	Facestock: Mylar
178° Shear (500 g, 0.25 in ²) (minutes)	36 C	19 C	20 C
SAFT Testing (min/temp° C)	26/49° C	1.0/40.01° C	7.0/36.7° C
Substrate: Stainless Steel Coat weight: 1.0 mil (+/-0.1 mil)			

A = Adhesive

C = Cohesive

FP = Fiber Pick

PT = Paper Tear

ADDITIONAL INFORMATION

Yellowing (Colorimeter “b” value)

UV Exposure (1 week) Mylar		Heat Exposure (1 week @ 140° F) Paper	
Before	After	Before	After
4.47	6.03	2.54	4.70

STORAGE AND HANDLING

Shelf life: Best if used within three 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.

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