



NOVACRYL™ PS-V 700

Permanent pressure sensitive adhesive for vinyl film applications

NovaCryl PS-V 700 water-based acrylic polymer adhesive is designed for vinyl (i.e., polyvinyl chloride) film applications including self-adhesive graphics, labels, films and tapes, indoor/outdoor temporary advertisements, as well as over laminates and protective clear films. **NovaCryl PS-V 700** can be used alone or formulated for a specific application or coating line configuration. It is compatible with many wetting agents, defoamers and rheology modifiers.

TYPICAL PROPERTIES

PHYSICAL PROPERTIES

Type	Acrylic emulsion
Solids	53–55%
pH	7–8
Brookfield Viscosity	800–1200 cps (LVT #3 spindle at 30 rpm, 25°C)
Surface Tension	43 dyn/cm
Glass Transition Temperature	-28°C
Average Particle Size	Large

CHEMICAL/MECHANICAL PROPERTIES

Mechanical Stability	Excellent
Multivalent Ion Stability	Anionic

NOVACRYL PS-V 700 ADVANTAGE

- Good balance of peel, tack and shear performance
- Excellent plasticizer resistance
- UV stable and good clarity
- Free of Alkyl Phenol Ethoxylate (APE) type surfactants
- Complies with FDA 21 CFR 175.105

ADHESION PERFORMANCE

Adhesion Test	Type	Failure Mode	Typical Adhesion Performance*		
			(oz/in)	(lbs/in)	(N/25 mm)
180° peel on Stainless Steel (SS)	30 min.	A	30.4	1.9	8.5
	24 hr.	A	43.2	2.7	12.0
180° peel on HDPE	30 min.	A	11.2	0.7	3.1
	24 hr.	A	14.4	0.9	4.0
Loop Tack on SS	1" x 1"	A	24.0	1.5	6.7
Loop Tack on HDPE	1" x 1"	A	41.6	1.2	5.3
Shear (30 min. dwell)	1/2" x 1/2" x 500 g	C	>20 hrs	>20 hrs	>20 hrs

Failure Mode: A = Adhesive; C = Cohesive

* All adhesion properties were evaluated on direct-coated 2 mil polyester facestock at 0.9 mil dry coat weight. PSTC 101 for peel adhesion, PSTC 16 for loop tack and PSTC 107 for shear testing.

FDA STATUS

Complies with 21 CFR 175.105 (Substances for use only as components of adhesives).



NOVACRYL™ PS-V 700

PLASTICIZER RESISTANCE PERFORMANCE

NovaCryl PS-V 700 can be used on a wide array of vinyl films with different types of plasticizers including monomeric and/or polymeric types. Actual performance depends on the composition and thickness of the vinyl film. Below is an example of plasticizer resistance performance of **NovaCryl PS-V 700**:

Plasticizer Resistance Test	Type	Failure Mode	180° Peel		
			(oz/in)	(lbs/in)	(N/25 mm)
Room Temperature (RT)	30 min.	A	27.2	1.7	7.6
	24 hr.	A	49.6	3.1	13.8
	7 days	A	54.4	3.4	15.1
Stainless Steel (SS)	24 hr.	A	41.6	2.6	11.6
	7 days	A	57.6	3.6	16.0
Release Liner (RL)	24 hr.	A	27.2	1.7	7.6
	7 days	A	14.4	0.9	4.0

Coat Weight 1.50 g/100 in² (# 20 rod). Failure Mode: A = Adhesive

- Adhesive transfer coated onto monomeric vinyl and tested for plasticizer resistance on SS substrate
- Samples were room temperature aged at 70°C for 30 minutes, 24 hours and 7 days either applied on SS or silicone release liner (RL)
- Samples aged on SS were tested for peel adhesion after 30 min. recovery at RT
- Samples aged on RL were applied to SS for the peel test after 30 min. conditioning time at RT, then tested for 20 min. peel adhesion

FORMULATION AND COMPATIBILITY

NovaCryl PS-V 700 can be used alone or formulated for a specific application or coating line configuration. It is compatible with many wetting agents, defoamers and rheology modifiers. To enhance adhesion performance, 5–35% (by wt.) tackifiers can be added. **NovaCryl PS-V 700** is compatible with aromatic hydrocarbon, rosin ester and hydrogenated rosin ester tackifiers and their blends. Preliminary trials should be conducted to determine the effective range of each component.

COATER READY PRODUCTS

NovaCryl PS-V701 – Wetting aid added.

NovaCryl PS-V702 – Wetting aid, defoamer added.

NovaCryl PS-V703 – Wetting aid, defoamer added, adjust viscosity/solids.

STORAGE, HANDLING AND PACKAGING

This product is available in a tank truck, 2200 lb. tote, 480 lb. fiber drum or 460 lb. plastic drum. Protect emulsion from freezing. Recommended storage temperature is 70°F (22°C). When stored as recommended, the shelf stability of the product is twelve months. Stir and mix well before using. As with all chemicals, please read the material safety data sheet (MSDS) prior to use. An MSDS for each OMNOVA product is provided with the shipment and periodically thereafter. An MSDS may also be obtained at any time by contacting your Customer Service Representative or by calling (888)253-5454.

To learn more about this product, or any other of OMNOVA Solutions' specialty chemicals, please contact us at:

Phone: (803)385-5181 • Email: pccustserv@omnova.com



RESPONSIBLE CARE[®]
OUR COMMITMENT TO SUSTAINABILITY

NOTE: Although the data supplied above is believed to be accurate, each user is advised to make an independent determination as to whether the described product(s) is/are appropriate for a particular use or application, whether such use will comply with all applicable laws or regulations, or whether such use will infringe the intellectual property rights of third parties.