

VINYBLAN 690 TECHNICAL DATA SHEET

Product description

VINYBLAN 690—Vinyl chloride/Acrylic Ester Copolymer (Emulsion).

Features

- VINYBLAN 690 has highest solid content within the VINYBLAN product line.

Applications

- Adds excellent chromogenic properties to paint and ink formulas, as well as coated surfaces.
- Often used as a binder for inks.
- Offers superior adhesion to the substrate and colorant dispersion in the absorbing layer when used in industrial inkjet printing applications.
- Heat sublimating printing absorbing layer use.
- Adds flame resistance when applied to textiles and non-woven fabric.
- Coatings provide heat resistance keeping the films from turning yellow with heat.

VINYBLAN 690 General Properties

Attributes	Results
Appearance	Milky white dispersion
Solid Content (%)	54
Viscosity (mPa·s)	200
PH	8.5
Average Particle Size (nm)	200
Tg (°C)	46
MFT (°C)	60
Specific Gravity	1.1
Acid Value (KOHmg/g)	6
Ionicity	Anion
Machine Stability (*1)	Good
Low Temperature Stability (*2)	Good

(*1) By the Marlon Stability tester.

(*2) No condensation was observed under 5°C.

Storage Conditions

- Store in cool, dry location and avoid direct sunlight. The desirable temperature range for storage is between 5°C and 30°C.

Film Properties	VINYBLAN 690
Tensile Strength (MPa)	32(*3)
Elongation (%)	0 (*3)
Oxygen Index Number (LOI value)	25 (*4)
Non-combustibility (MVSS Standard)	160 (*5)
Coating Volume 50g [mm/min]	Self-extinguishing (*5)
Non-combustibility (MVSS Standard)	
Coating Volume 100g [mm/min]	Transparent (*6)
Transparency	
Heat Resistance [150°C]	Good (*7)
Heat Resistance [200°C]	Good (*7)

Evaluation Method

*3: Prepares a film of VINYBLAN with a thickness of Ca. 0.3mm
Measures Tensile Strength under the tension of 500mm/min and Elongation of the film when the film is torn down.

*4: By LOI Standard (JIS K7201)

*5: By MVSS-302 standard
Backing: 100% polyester woven fabric
Coating volume: 50g or 100g/m² (dry)
Treatment: Dipping Drying: 130°C x 5 min.

*6: Applies VINYBLAN on glass plate with a #12 Bar Coater, drying condition: 100°C then observes the sample.

*7: Applies VINYBLAN on a piece of paper with a #12 Bar Coater, drying condition: 150°C and 200°C, then observes if the film turns yellow after 30 minutes.

Packaging

- 18kg can; 200kg Drum; 1,000kg Container

Shelf Life

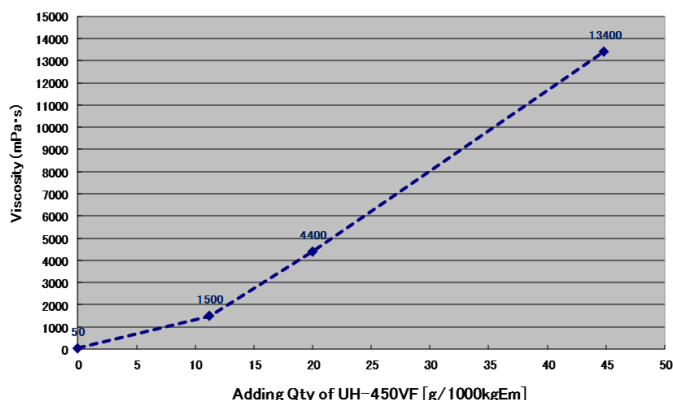
- When this product is properly stored in the original unopened container at cool temperature, ranging between 5°C and 30°C, and in a dark location, we certify that every characteristic of this product meets the specifications for 6 months after the shipping date from our factory in Japan.

VINYBLAN 690

Processing Information

- Vinyblan can be applied in various methods, including spray, gravure, foaming, dipping, and knife coating.
- Recommended drying temperature is 120°C or higher.
- When higher viscosity is needed, thickening agent (urethane associative type or alkali type) can be used.

Please see the below table for an example of Urethane associative type thickening agent. (Adekanol UH-450VF)



- To achieve better film formation, we recommend adding glycol type high-boiling point solvents.
- VINYBLAN can be diluted by water.
- VINYBLAN can be mixed with various anionic emulsions.
- Mixing Vinyblan with alcohol, such as Methanol or IPA, can cause gelation. (Except for 700 series)

Please contact: Shin-Etsu MicroSi
1.888.642.7674 www.microsi.com

Nissin Chemical Industry Co., Ltd.
+81.3.3295.3931 www.nissin-chem.co.jp



Caution

- ◆ Follow the precautions in the material safety data sheet and technical references.
- ◆ VINYBLAN is for industrial use only.
- ◆ The data in this document does not include all specifications. Purchasers must conduct tests of their own before putting the product to practical use to verify its compliance, with their intentions for its employment.
We give no guarantee that the uses presented in this document do not come in conflict with any patents. For the purpose of enhancement of performance or change of specifications, the contents in this document are subject to revision without notice.
- ◆ Permission is required to reprint our data.