

Key Features & Benefits

- *Low pH maintenance*
- *Good water resistance*
- *Good resolubility and printability*
- *Adhesion to film and foil*

LOW MAINTENANCE VEHICLE, pH STABLE, WATER-RESISTANT FILM FORMING EMULSION

General Information

Typical Physical Characteristics

Appearance	Translucent emulsion
pH	7.6
Non-Volatile, %	47.8
Viscosity, cps*	800
Density at 25°C, g/cm ³	1.05
Acid Number, NV	52
Molecular Weight, Mw	> 200,000
Freeze/Thaw Stable	Yes
Tg, °C	- 30
Minimum Film Forming Temp., °C	< 0
Total VOC, % weight	0.7

*Brookfield LVF #3 spindle, 30 rpm, 25°C.
These typical values should not be interpreted as specifications.

Joncryl® LMV 7034 is a film forming, low maintenance, pH stable, Rheology Controlled (RC) acrylic emulsion that enables the formulation of low maintenance ink for flexible film substrates. This product imparts the adhesion and water resistant characteristics needed in ink formulations for utility bag and other surface-print film and foil applications.

STARTING POINT FORMULATIONS:

Pigment dispersions made from Joncryl LMV 7085 provide a good basis on which to formulate pH neutral water-based fluid inks modified with **Joncryl LMV 7034**. The following formulations have adhesion to treated polyethylene and treated or coated polypropylene and polyester films. Pigment dispersion formulations to follow.

Flexible Substrate Inks:

	<u>Yellow</u>	<u>Red</u>	<u>Blue</u>	<u>Black</u>
Dispersion A	40.0	0.0	0.0	0.0
Dispersion B	0.0	40.0	0.0	0.0
Dispersion C	0.0	0.0	38.0	0.0
Dispersion D	0.0	0.0	0.0	50.0
Joncryl LMV 7034	46.0	45.6	47.4	39.2
Wax Emulsion	5.0	5.0	5.0	5.0
Silicone Emulsion	0.7	0.7	0.7	0.7
Water	8.2	8.6	8.8	5.0
Defoamer	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>	<u>0.1</u>
TOTAL	100.0	100.0	100.0	100.0

Optimal pH stability is obtained when dispersions based on Joncryl LMV 7085 are used in the ink formulation. Water resistance can be further enhanced by using standard, high pH resin-based dispersions. If using high pH pigment dispersions, raise the pH of the **Joncryl LMV 7034** to 8.0 or higher before introducing the dispersion for improved compatibility.

Pigment Dispersions:

Joncryl® LMV 7085 provides the rheology and wetting to produce high quality pigment dispersions. The level of product can be adjusted to disperse either a dry pigment or high solids press-cake.

	Dispersion A <u>Yellow</u>	Dispersion B <u>Red</u>	Dispersion C <u>Blue</u>	Dispersion D <u>Black</u>
Yellow 14	40.1	0.0	0.0	0.0
Red 57:1	0.0	35.0	0.0	0.0
Blue 15:3	0.0	0.0	40.1	0.0
Carbon Black	0.0	0.0	0.0	33.0
Joncryl LMV 7085	30.4	26.5	30.4	33.4
Water	29.3	38.3	29.3	33.4
Defoamer	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>
TOTAL	100.0	100.0	100.0	100.0

Physical Characteristics

Initial Viscosity, cps*	1,200	1,920	465	550
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*Brookfield LVF #2 spindle, 30 rpm, 25°C.

Mixing Procedures:

1. Pre-blend batch to uniformity using high speed dispersing equipment.
2. Feed blend into small media mill.
3. Increase speed and disperse to required fineness of grind or maximum color development.

The statements in the product literature and label are guidelines only. Users should test this product in advance to verify suitability for particular uses. BASF Corporation neither makes nor authorizes to be made any express or implied representation or warranty with regard to this product concerning the performance, use, fitness for particular purpose, suitability for use on any surface or merchantability of this product, whether used alone or in combination with other products. The furnishing by us of information and products either as experimental samples or by sales, contains no recommendations respecting the use of these products or the lack of infringement of any patent nor does it grant a license under any patent owned by our company. BASF assumes no liability for any damage of any kind regardless of cause, including negligence.

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