

**RESIFLOW® LG-99
FLOW CONTROL AGENT
FOR THE COATINGS INDUSTRY**



THE EDGE OF INNOVATION

www.estron.com

GENERAL DESCRIPTION

Resiflow® LG-99 is a non-silicone, flow, leveling and wetting additive for UV and solvent-based inks and coatings. Resiflow® LG-99 can also be used in UV free radical, cationic cure systems, solvent-based acrylics, phenolics, epoxies, polyesters, polyurethanes, nitrocellulose lacquers, and other systems. Typical dosage is 0.1-3.0% based on total formula. Dilute Resiflow® LG-99 in a desired monomer or solvent prior to incorporating into the formulation.

Performance features:

- Promotion of flow, leveling and substrate wetting.
- Elimination of pinholes, and air entrapment.
- No interference with clarity and gloss at various levels.
- High synergy with silicone wetting and defoaming additives.
- Moderate surface tension modification when used alone.
- Promotes hot stampability. Eliminates defects in wet-on-wet applications.
- Minimizes usage of silicones.

TYPICAL PROPERTIES*

Appearance	Clear Liquid
Gardner Color	2 max.
Specific Gravity (25/25)	1.04 – 1.06
Gardner Viscosity, 80% SOLIDS IN XYLENE	T – X
Non-Volatile, weight %	98.5% minimum
Acid value, mg KOH / gram	1 max.

* Not to be used for specification purposes

UV FLEXO INK

Pigment Dispersion

		<u>Percent</u>
Flexcure D30 (Ashland)	26.01	50.59
BL 1531 (Magruder)	15.15	29.47
Methoxy PEG 550 Methacrylate	<u>10.25</u>	<u>19.94</u>
	51.41	100.00

Dispersed on three roll mill until no scratches or specks were noted on the grind gauge

Inks	Control	<u>Percent</u>	EST 60404-2	<u>Percent</u>
Pigment Dispersion	15.00	28.99	15.00	28.99
Methoxy PEG 550 Methacrylate	12.00	23.19	12.00	23.19
Ebecryl 1290 (UCB)	9.24	17.86	9.24	17.86
TMPEOTA	13.00	25.13	12.00	23.19
Viacure DX (UCB)	2.50	4.83	2.50	4.83
<i>Resiflow LG-99</i>	<u>0.00</u>	<u>0.00</u>	<u>1.00</u>	<u>1.93</u>
	51.74	100.00	51.74	100.00

Pigment loading in ink: 8.543383

Proofs were made on OPP using a Pamarco handproofer with a 550 line 2.7 bcm laser engraved anilox roll

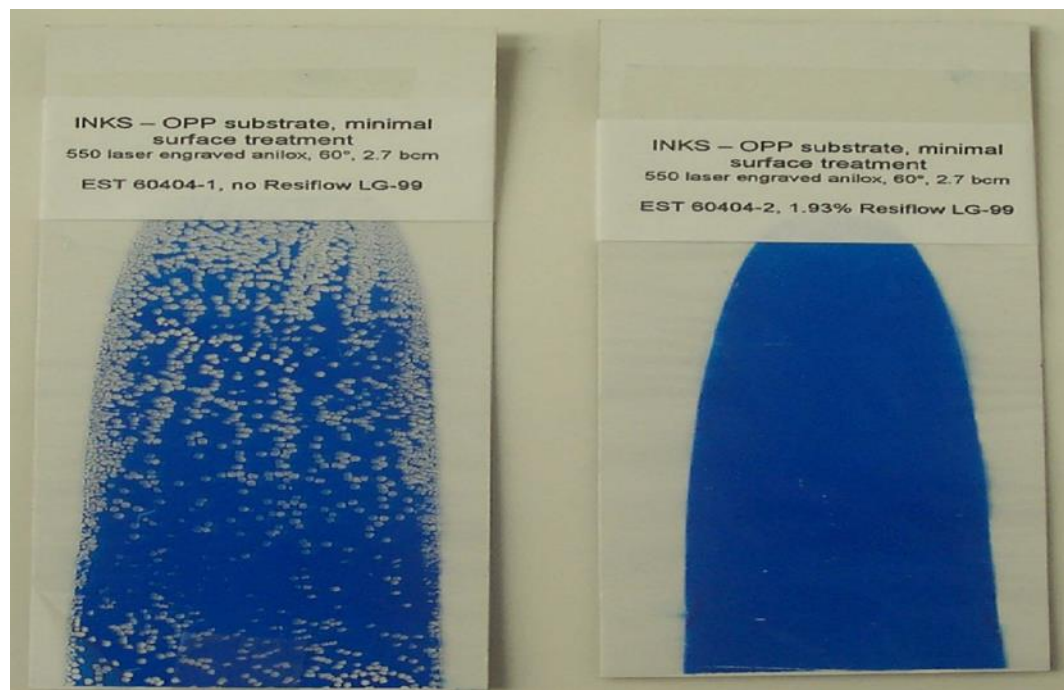
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Conclusion: The ink containing LG-99 showed good wetting on OPP (*with minimal surface treatment*); the ink that did not contain LG-99 demonstrated extremely poor wetting.



HOT-STAMPABLE FLEXO UV OVERPRINT VARNISH

Epoxy Diacrylate 60% in TMPTA	30.0	parts
TMPTA	22.0	"
TPGDA	23.0	"
Benzophenone	8.0	"
Acrylated Amine Synergist	15.0	"
Resiflow LG-99	0-3.0	"
Silicone Wetting Agent	0-0.7	"
Silicone Defoamer	0-0.2	"

Viscosity @ 70°F	300 cps
Film Weight	3#/ream
Substrate	9 pt Lithographed C1S
Application Method	Flexo 180Q Anilox
Lamp	3X300W Hg
Line Speed	450 ft/min
MEK DR	>50
60° Gloss	97

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Resiflow LG-99 Provides:

- Outstanding substrate wetting without inducing foam. Excellent for paper, paperboard, lithographed paper, vinyl, styrene, wood and metals.
- Cured film surface tension above 33 dynes/cm. Prevents drastic reduction in surface tension of the cured film in the presence of silicone defoamers and wetting aids.
- Does not retard cure, especially under adverse ambient, high humidity or low energy conditions
- Spray powder acceptance. Alleviates surface imperfections from starch-based anti-offsetting powders in ink applications
- No phase separation, haziness, or deterioration of cure response under long-term storage, or hot storage environments.

REGULATORY LISTINGS

The components in this material are either listed or exempt from listing due to polymer exemption criteria for the following chemical listing inventories: AICS (Australia), DSL (Canada), ECN (Taiwan), EINECS (Europe), ENCS (Japan), TSCA (USA)

PACKAGING (NET WEIGHT)

44 lb. / 20.0 kg in steel pail
440 lb. / 199.6 kg in steel drum

PRODUCT AVAILABILITY

This product is commercially available and may require lead time.

STORAGE AND HANDLING

Store in a dry, cool area and avoid excessive heat. Shelf life of unopened containers is one year from date of shipment. Refer to the SDS for additional information.

CONTACT INFORMATION

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Revision Date: September 22, 2017

TDS Revised by: A. Chizhikova

TDS Approved by: F. Allen