

**RESIFLOW<sup>®</sup> 2N  
FLOW CONTROL AGENT  
FOR WATERBORNE COATINGS**

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THE EDGE OF INNOVATION

**GENERAL DESCRIPTION**

Resiflow<sup>®</sup> 2N is a carboxylic flow modifier used to eliminate surface imperfections such as pinholes, craters, fish-eyes, orange peel, edge-pull and sagging. Resiflow<sup>®</sup> 2N can be incorporated during pigment grinding or at letdown. When it is incorporated in the pigment dispersion prior to letdown, Resiflow<sup>®</sup> 2N may alleviate pigment floating and foam formation. The product is suitable for use in acrylic, alkyd, epoxy, polyester, and other industrial coatings systems.

Resiflow<sup>®</sup> 2N can be incorporated into high solids and solvent-based coatings in its supplied form, a 50% solution in a butyl cellosolve/isopropanol mixture. The product becomes water soluble after neutralization with ammonia or amines.

The recommended level of usage is 1-6% based on resin solids. At the higher level addition range, Resiflow<sup>®</sup> 2N can improve the flexibility of coatings. As with any raw material, laboratory evaluation is required for each formulation to determine the best processing method and the optimum concentration of the additive.

**TYPICAL PROPERTIES\***

Appearance	Clear Liquid
Gardner Color	2 max.
Specific Gravity (25/25)	0.98 – 1.01
Gardner Viscosity	C – H
Non-Volatile, weight %	49 – 51%
Acid value, mg KOH / gram	50 - 55

\* Not to be used for specification purposes

**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), EINECS (Europe), NDSL (Canada), PICCS (Philippines), TSCA (USA)

**PACKAGING (NET WEIGHT)**

40 lb. / 18.1 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**

Keep container tightly closed and store in a dry, well ventilated area away from heat and sources of ignition. Shelf life of unopened containers is 1 year from date of shipment. See SDS for additional information.

**CONTACT INFORMATION**

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Revision Date: October 16, 2014    TDS Revised by: A. Karanam    TDS Approved by: R. Auerbach

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**SUGGESTED FORMULATIONS**

HIGH-GLOSS WHITE BAKING ENAMEL  
Industrial and Maintenance Coatings

Grind

Kelsol 3962 (Reichhold)	120.00	lb.
AMP-95 (Angus)	7.64	lb.
<b>Resiflow<sup>®</sup> 2N</b> (Estron Chemical)	12.01	lb.
EB glycol ether	18.65	lb.
TiO <sub>2</sub>	250.00	lb.

Letdown Portion 1 (HGD 7N.S.)

Kelsol 3962	129.02	lb.
EB glycol ether	22.64	lb.
TEA	9.80	lb.

Letdown Portion 2

Cymel 325 (American Cyanamide)	39.21	lb.
DB glycol ether	5.90	lb.
Exkin No. 2 (Huls)	3.01	lb.
Byk 020 (Byk)	1.81	lb.

<u>Water</u>	<u>403.33</u>	<u>lb.</u>
<b>Total</b>	<b>1,023.02</b>	<b>lb.</b>

PAINT PROPERTIES

Bake Schedule	10 min. @ 300°F
Gloss @ 60°	85-90
pH	8.75
Viscosity	35 sec., #3 Zahn Cup
Salt Spray	160 hrs.
Humidity	168 hrs.
Hardness	H-2H

DIPPING ENAMEL

High-Gloss Black

Kelsol 3964 (Reichhold)	35.20	lb.
Glycol Ether	10.80	lb.
Disperbyk 182 (Byk)	5.10	lb.
TEA	4.20	lb.
<b>Resiflow<sup>®</sup> 2N (Estron)</b>	<b>15.01</b>	<b>lb.</b>
Black 4A (Degussa)	21.20	lb.

Add:

Water	79.30	lb.
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Sand Mill to 7N.S.

Add:

Water	45.00	lb.
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Kelsol 3964	185.50	lb.
TEA	10.50	lb.
EB Glycol	20.20	lb.
Texanol (Eastman)	10.10	lb.
Anti-Skinning Agent	3.80	lb.
Cymel 303 (American Cyanamide)	32.60	lb.

Mix thoroughly, then add:

<u>Water</u>	<u>389.76</u>	<u>lb.</u>
<b>Total</b>	<b>868.27</b>	<b>lb.</b>

PAINT PROPERTIES

Cure Schedule	15-20 min. @ 350 F
Gloss @ 60°	85-90
pH	8.7
Viscosity	25-30 sec., #2 Zahn Cup
Wt/gal.	8.7

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SPRAY AIR-DRY  
High-Gloss White

Kelsol 3966-B2G70 (Reichhold)	130.60	lb
Aqueous Ammonia (26 deg)	7.50	lb
<b>Resiflow<sup>®</sup> 2N (Estron)</b>	12.01	lb
EB Glycol	15.35	lb
TiO <sub>2</sub>	230.30	lb

HSD to 7N.S:

Kelsol 3966-B2G70	160.58	lb
Aqueous Ammonia 26 Deg	8.50	lb
EB Glycol	20.01	lb
Byk-020	1.50	lb

Premix, Then Add:

Sec. Butanol	20.10	lb
Drier 5% cobalt	8.01	lb
Active 8	2.00	lb
Anti-Skinning Agent	4.00	lb

Mix thoroughly, then add:

Water	389.95	lb
<b>Total</b>	<b>1,010.41</b>	<b>lb</b>

PAINT PROPERTIES

Cure	Air Dry
Application	Spray
Gloss @ 60°	80-85
pH	8.6
Viscosity,	65 sec., #2 Zahn Cup
Wt/Gal.	10.1