



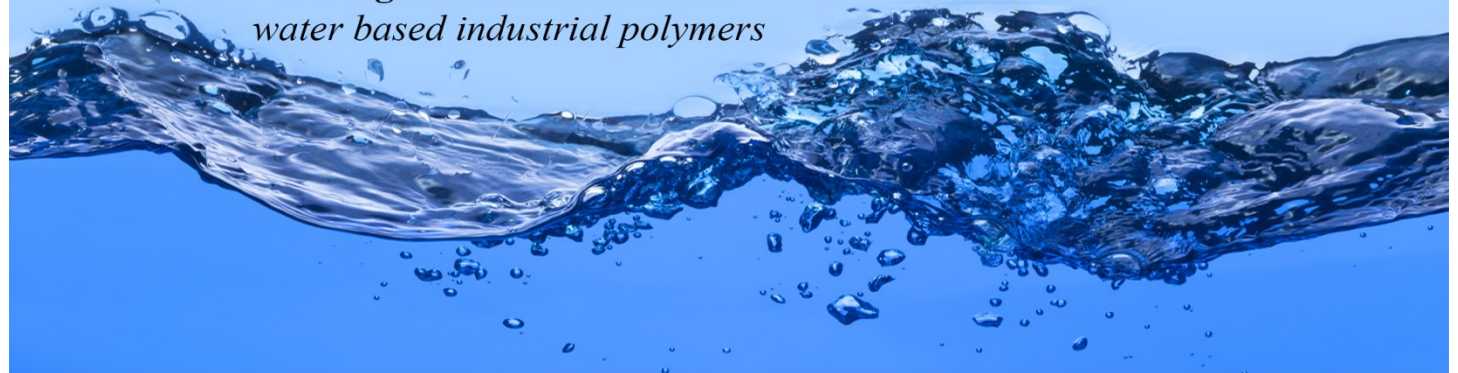
Gellner Industrial, LLC

105 Tide Road, Hometown, PA 18252

PHONE: 570-668-8800

www.gellnerindustrial.com

water based industrial polymers



Ottopol K-23 Technical Data sheet

Cationic Emulsion

Ottopol K-23 is an alkali resistant cationic acrylic copolymer emulsion. It is designed for use as a grinding and letdown vehicle for waterbased flexographic and rotogravure inks. It is also suitable for use as an overprint varnish. The emulsion characteristics provide higher solids and better gloss.

Alkali Resistance

Unique to the graphic arts industry. Ottopol K-23 has excellent alkali and detergent resistance. Inks and coatings for soap boxes and paper towels will not be effected by the high pH content or detergent cleaners used with towels.

Adhesion to Difficult Substrates

Positive charge allows inks and coatings made with Ottopol K-23 to have exceptionally good adhesion to plastic films; Polyethylene, PVC, Polyester, and Polystyrene.

All finished inks and coatings perform best at a pH of 4.8 - 6.0. Acetic or formic acid is used for pH adjustment. Do not use Ottopol K-23 with any anionic water based systems. Additives with a pH above seven will result in the precipitation of the dispersed resin.

All product information contained in our product literature as well as any suggestions for use of our products contained in that literature, is based on information we believe to be reliable. However since particular conditions and methods of use involved in a particular product application are beyond our control, any such information is to be regarded as merely suggestive and should be verified by each user. Any suggestion made regarding the use of our products should not be construed as any authorization to infringe on patents, trademarks or similar rights of others.

Gellner Industrial, LLC, warrants that its products have been manufactured with due care, are free of defects in material or workmanship, and conform to the specifications stated in the data sheets applicable to each product or to specifications otherwise explicitly agreed upon in a writing which refers to this warranty. THIS WARRANTY IS IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. Gellner Industrial, LLC's liability under this warranty is limited to replacing, free of charge, any product that is found upon examination by Gellner Industrial, LLC, to be defective. Gellner Industrial, LLC, SPECIFICALLY DISCLAIMS ANY LIABILITY FOR CONSEQUENTIAL DAMAGES. It is strongly recommended that a prospective user of one of our products verify the suitability of that product for a given application before its use in production.

PRODUCT SPECIFICATIONS

Description -----	Cationic Acrylic Colliodal Dispersion
Appearance-----	Milky Translucent Liquid
Solids-----	41.0 – 43.0 Percent Solids
PH -----	5.0 - 6.0
Viscosity-----	200 - 500 cps
Specific Gravity -----	1.073
Weight per Gallon-----	8.95
Glass Transition Temperature -----	26
Flash Point -----	None
Freeze Thaw Stability -----	5 Cycles
FDA Status -----	USDA Approved

OTTOPOL K-23

STARTING FORMULATIONS

FLEXOGRAPHIC INKS

Materials	Parts by Weight		
	-1	-2	-3
Ottopol K-21-30	20	20	15
Water	14	14	14
Ba-Li Red	15	-	-
Phthalo Blue	-	15	-
TiO2	-	-	35
Ottopol K-23	50	50	35
Slip Additive	<u>1</u>	<u>1</u>	<u>1</u>
	100	100	100

Procedure: Place all components into a mill and grind until the desired gauge reading is attained.

ALKALI RESISTANT OVERPRINT VARNISH

Materials	Parts by Weight	
	-1	-2
Ottopol K-23	63	60
Ottopol K-21-30	30	30
Water	6	3
Cationic Wax Emulsion	-	7
Slip Additive	<u>1</u>	<u>-</u>
	100	100

Procedure: Place all components in the order listed into a mix tank. Stir while adding the individual components. Continue stirring until the finished product is homogeneous.

Important! Adjust pH of finished inks and coatings to 4.8 - 6.0 using acetic or formic acid.