

# Autotype Autosol

---

*Direct Emulsions*

**Top Performance and Reliability for  
Every Screen Printing Application**



**YES WE CAN** <sup>SM</sup>

 **MacDermid**



**MacDermid Autotype Inc.** is part of MacDermid Incorporated, a worldwide manufacturer of proprietary specialty chemical products and materials for the electronics, metal finishing and graphic arts industries. MacDermid Autotype specializes in the development, manufacture and distribution of films and chemicals for traditional printing and digital imaging markets and for high-tech industrial and optical applications.

## Contents

Autotype Autosol XL .....	3
Autotype Autosol 8000 .....	4
Autotype Autosol Classic .....	5
Autotype Autosol TX .....	5
Autotype Autosol 7000 .....	6
Autotype Autosol 6000 and 6000CL .....	7
Autotype Autosol 2000 .....	7
Autotype WR Hardener .....	12

## Presensitized Autotype Autosol Emulsions

Autotype Autosol XFT .....	8
Autotype Autosol ONE .....	8
Autotype Autosol 9000 .....	9
Autotype Autosol Neptune .....	9
Autotype Autosols at a Glance: Selection, Technical Specs and Exposure Charts .....	10-11

# Autotype Autosol XL

*Premium Solvent and Water Resistant Dual Cure Emulsion*

## Product description

**Autotype Autosol XL** is a high performance direct emulsion with outstanding image reproduction qualities. It is resistant to both solvents and water, making it an excellent choice for the most extensive range of screen printing applications. Use it for fine line artwork and four-color process work.

Available in 1-qt., 1-gal. and 5-gal. containers, as well as 50-gal. drums

## Applications

- A wide range of graphics applications, from POP displays to advertising specialties
- Garment and textile printing, including t-shirts, fleecewear, caps, sports apparel and more
- Industrial screen printing applications
- Electronics, including rigid and flexible circuitry

### Autotype Autosol XL Features and Benefits

<b>Superior printed edge quality and resolution</b>	Prints a superior image on all types of images, from line work to fine halftones; an excellent choice for process color work
<b>High durability</b>	Resistant to a wide range of screen printing inks, including solvent-based, water-based, UV-curable, plastisol and other textile inks.
<b>Humidity resistance</b>	Long run durability even in high humidity conditions
<b>Widest range of compatible inks</b>	No need to use another emulsion when changing ink systems
<b>Direct Addition Diazo</b>	Faster mixing eliminates one step from the emulsion mixing process
<b>Application versatility</b>	Outstanding choice for an extensive range of screen printed product specialties, regardless of print-quality requirements or the ink system being used



# Autotype Autosol 8000

*Premium Quality Solvent and Water Resistant Emulsion*

## Product description

**Autotype Autosol 8000** is a premium dual cure direct emulsion that offers superior image reproduction, resistance to both solvents and water, and the toughest stencil available in the product range. Autotype Autosol 8000 is the best choice when the job requirements demand the best print quality and an extremely tough stencil.

Available in 1-qt., 1-gal. and 5-gal. containers, as well as 50-gal. drums.

## Applications

- 4-color process
- Fine detail artwork
- Industrial applications including electronic parts, membrane switch components, flexible circuitry, nameplates and decals.
- Garment printing
- Graphics printing



## Autotype Autosol 8000 Features and Benefits

<b>Superior printed edge quality and resolution</b>	Prints a superior image on all types of images, from line work to fine halftones; an excellent choice for process color work
<b>Highest durability</b>	Resistant to the most aggressive screen printing inks. The most durable emulsion in the product line
<b>Humidity resistance</b>	Long run durability even in high humidity conditions
<b>Wide range of compatible Inks</b>	No need to use another emulsion when changing ink systems
<b>Direct Addition Diazo</b>	Faster mixing eliminates one step from the emulsion mixing process
<b>Application Versatility</b>	Outstanding choice for an extensive range of screen printed product specialties, regardless of print-quality requirements or the ink system being used

# Autotype Autosol Classic

## *The Original Dual Cure Autosol*

### Product description and applications

For over 15 years, screen printers all over the world have relied on **Autotype Autosol Classic** for its versatility, durability and excellent copying qualities. Autotype Autosol Classic is resistant to both solvents and water, yet it is easy to reclaim. Its easy-to-use features make it an excellent choice as an 'all purpose' emulsion for a very wide range of applications.

- Electronics applications and Industrial printing, including membrane switch components, decals, and nameplates
- All types of garments, including t-shirts, fleecewear, sports apparel, and caps
- Signs, posters, banners, ad specialties, POP displays and all other graphics applications

#### Autotype Autosol Classic Features and Benefits

<b>Compatible with a wide variety of ink systems</b>	Resistance to both solvents and water makes this emulsion highly suitable for virtually any type of print job as well as the longest print runs.
<b>Excellent mesh bridging</b>	Requires fewer coats to reach desired stencil-surface and and print-definition characteristics
<b>Excellent humidity resistance</b>	Ideal for use in shops where high humidity leads to stencil breakdown during print runs
<b>Relatively fast exposure</b>	Minimizes opportunity for light undercutting (sawtoothing) and speeds screen production

# Autotype Autosol TX

## *Diazo Sensitized Premium Textile Direct Emulsion*

### Product description and applications

**AUTOSOL TX** is a high quality, 40% solids, pigmented aqueous emulsion of water soluble dispersible polymers and monomers, supplied with diazo powder sensitizer.

AUTOSOL TX is resistance to a wide range of textile inks including water based, plastisol as well as solvent and co-solvent inks. AUTOSOL TX is particularly recommended for applications where the very highest print durability and print quality is required, especially in extreme printing environments, while remaining reclaimable after printing.

#### Autotype Autosol TX Features and Benefits

<b>Application versatility</b>	Resistant to wide range of textile inks
<b>Direct Addition Diazo</b>	Faster mixing eliminates one step from the emulsion mixing process
<b>Highly durable</b>	Excellent in adverse shop conditions, especially in high heat and humidity
<b>High flexibility</b>	Forgiving to aggressive stress on stencil during printing and cleaning

# Autotype Autosol 7000

*General Purpose Solvent and Water Resistant Direct Emulsion*

## Product description

**Autotype Autosol 7000** is a very durable high resolution dual-cure direct emulsion that is compatible with a wide variety of screen printing inks and suitable for use in an extremely wide range of printing applications. Available in 1-qt., 1-gal. and 5-gal. containers, as well as 50-gal. drums.

### Autotype Autosol 7000 Features and Benefits

<b>High durability</b>	Excellent in adverse shop conditions, especially in high heat and humidity
<b>Humidity resistance</b>	Long run durability even in high humidity conditions
<b>Widest range of compatible inks</b>	No need to use another emulsion when changing ink systems
<b>Wide exposure latitude</b>	Forgiving to some degree of underexposure and overexposure
<b>Direct Addition Diazo</b>	Faster mixing eliminates one step from the emulsion mixing process
<b>Application versatility</b>	Good for shops that print a diverse range of products and require excellent printed image quality, even for four-color process work
<b>Easy reclaiming</b>	Faster screen turnaround, less labor to reclaim

## Applications

- General graphics applications, including POP displays, posters, signage, exhibition graphics, etc.
- Industrial applications include membrane switch overlays, circuitry, nameplates, automotive parts, labels and decals
- Garment and textile printing



# Autotype Autosol 6000 and 6000CL

## High Quality Water Resistant Textile Printing Emulsion

### Product description and applications

**Autotype Autosol 6000** is a diazo sensitized direct emulsion formulated specifically for garment decorating and textile printing applications. The standard product is a pigmented (purple) emulsion, while the 6000CL is a 'clear' formulation, for those occasions when on-press registration is important.

Applications for Autotype Autosol 6000 and 6000CL include garment and textile applications such as t-shirts, fleecewear, caps, fabric banners, bolt textiles, and more. Available in 1-qt., 1-gal. and 5-gal. containers, as well as 50-gal. drums.

#### Autotype Autosol 6000 Features and Benefits

<b>Very high solids content</b>	Faster stencil build on coarse meshes saves time and reduces blemishes in emulsion coating.
<b>Direct Addition Diazo</b>	Eliminates the need to dilute and mix sensitizer prior to adding to the emulsion.
<b>Available in 'clear' version</b>	Very lightly pigmented. Promotes easy visual registration on the press.
<b>High durability</b>	Very good for long print runs
<b>Good decoating properties</b>	Enables reuse of the mesh, even though it produces a highly durable stencil.

# Autotype Autosol 2000

## Fast Exposing Multi-Purpose Dual Cure Direct Emulsion

### Product description and applications

**Autotype Autosol 2000** is a quality, durable direct emulsion formulated for a wide variety of applications where rapid stencil production is important.

Autotype Autosol 2000 is a good choice for general graphics applications, including POP displays, posters, signage, exhibition graphics, etc. Industrial applications include membrane switch overlays, nameplates, labels and decals.

#### Autotype Autosol 2000 Features and Benefits

<b>Fast exposure</b>	Good for use in high production shops or where weak light sources or excessive exposure distance requires a fast-exposing emulsion, e.g. large format graphics applications..
<b>Humidity resistance</b>	Long run durability even in high humidity conditions
<b>Direct Addition Diazo</b>	Faster mixing eliminates one step from the emulsion mixing process
<b>Application versatility</b>	Good for shops that print a diverse range of products and want to use just one emulsion.
<b>Wide exposure latitude</b>	Forgiving to a reasonable amount of underexposure

# Autotype Autosol XFT

## *Pre-sensitised Photopolymer Emulsion for Computer to Screen Exposure*

### Product description and applications

**Autosol XFT** is an ultra fast exposing, 35 – 36% solids red pigmented photopolymer based direct emulsion.

AUTOSOL XFT has been formulated specifically for DMD Computer to Screen direct exposure, and is primarily intended for large format graphics applications using solvent based and UV curing inks.

#### Autotype Autosol XFT Features and Benefits

<b>Exposure times</b>	<b>Signtronic CTS unit -</b> Coating 2+1 380 / 32 yellow mesh, 350 - 380 speed @ 260 – 330 columns. Coating 2+1 230/40 white mesh, 260 speed @ 471 columns.  <b>CST unit -</b> Coating 2 + 1 380 / 33 amber mesh 20 – 25 cm/sec.
<b>Very fast exposing</b>	Fast screen production turnaround, even where weak light sources are used
<b>Quick &amp; easy washout</b>	Reduces processing time, less labor to washout
<b>Easy reclaiming</b>	Faster screen turnaround, less labor to reclaim

# Autotype Autosol ONE

## *Presensitized Graphics and Textile Emulsion*

### Product description and applications

**Autotype Autosol ONE** is a presensitized photopolymer emulsion formulated for high-end screen printing applications which use solvent-based, UV-curable and plastisol inks. Autotype Autosol ONE features the best image reproduction and extremely fast exposure. Screen printers will be pleased to learn that the superior performance comes with a very economical price tag.

Autotype Autosol ONE is recommended for all graphic screen printing applications and has proven to be an excellent performer in textile and garment printing. Industrial applications include membrane switch overlays, circuitry, nameplates, automotive parts, labels and decals. It also includes garment and textile printing.

#### Autotype Autosol ONE Features and Benefits

<b>Photopolymer sensitized</b>	No mixing or waiting for emulsion to rest after mixing. Use straight from the container.
<b>Very fast exposing</b>	Fast screen production turnaround, even where weak light sources are used
<b>Highly durable</b>	Resistant to the most aggressive printing conditions, such as high heat and humidity, aggressive inks and solvents; very good for long print runs
<b>Superior image resolution and definition</b>	Prints a superior image on all types of work, including fine line detail and process color
<b>Versatility</b>	Encompasses a very wide range of screen fabrics and types of print jobs, eliminating the need for using different emulsions for different applications



# Autotype Autosol 9000

## Presensitized Direct Emulsion for Garment and Textile Printing

### Product description

**Autotype Autosol 9000** is high solids, fast exposing presensitized photopolymer-type emulsion for garment and textile decorating applications. This is an excellent choice for garment printers who are looking for an easy to use emulsion that produces high stencil build with fewer coats on coarser meshes. Can be used for various applications including: all types of garments, including t-shirts, fleecewear, sports apparel, and caps. Available in 1-qt., 1-gal. and 5-gal. containers, as well as 50-gal. drums.



### Autotype Autosol 9000 Features and Benefits

<b>One part system</b>	Eliminates the need to sensitize prior to use
<b>Excellent coating quality</b>	Reduced drag on the coating trough for faster and smoother coating with less effort
<b>Very fast exposure</b>	Significant time savings for large volume shops and where weak light sources are used
<b>Very high solids</b>	Fewer coats yield the desired stencil thickness, even on coarse meshes. Compared to other SBQ-based emulsions, Yields as much as 25-50% higher stencil build with the same number of coats (depending on mesh count).
<b>Good exposure latitude</b>	Forgiving to as much as 25% overexposure, an important feature for such a fast exposing emulsion

# Autotype Autosol Neptune

## Presensitized Photopolymer Emulsion for Garment, Textile and POP Applications

### Product description

**Autotype Autosol Neptune** is a very fast, blue One-part photo emulsion, especially recommended for the Textile and POP graphic industries and is resistant to water based, plastisol & UV inks.

### Autotype Autosol Neptune Features and Benefits

<b>Ultra fast exposure</b>	Exposure time is 20x faster than average photopolymer emulsions
<b>Wide ink compatibility range</b>	Works well with water based, plastisol, and UV inks
<b>High durability; Reclaimable</b>	Very good water and solvent resistance; yet, easily reclaimable

# Autotype Autosols at a Glance

Your choice of emulsion affects the outcome of the finished job, as well as job costs and production efficiency. Always select an emulsion based on the needs of your shop and the requirements of the job.

KEY: Good 1st choice Good 2nd choice Suitable

## Autotype Autosol Selection Chart

Job Specifications		Autosol XL	Autosol Classic	Autosol 9000	Autosol 8000	Autosol 7000	Autosol 6000	Autosol 2000	Autosol ONE	Autosol XFT	Autosol TX
Ink	Textile, plastisol	Good 1st choice	Suitable	Good 1st choice	Good 2nd choice	Good 2nd choice	Good 1st choice	Suitable	Good 2nd choice	Suitable	Good 1st choice
	Textile, water-based	Suitable	Suitable	Suitable	Good 1st choice	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Good 1st choice
	Textile, expanding	Suitable	Suitable	Good 1st choice	Good 2nd choice	Good 2nd choice	Good 1st choice	Suitable	Good 2nd choice	Suitable	Good 1st choice
	Solvent-based	Good 1st choice	Good 1st choice	Suitable	Good 1st choice	Good 1st choice	Suitable	Good 1st choice	Good 1st choice	Good 1st choice	Suitable
	UV-curable	Good 1st choice	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Suitable	Good 1st choice	Suitable
	Silver conductive	Good 1st choice	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable
	Water-based graphics	Good 1st choice	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable
	Solder mask	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable
	Ink deposit: Thick	Suitable	Good 1st choice	Good 1st choice	Good 2nd choice	Good 2nd choice	Good 1st choice	Suitable	Good 2nd choice	Suitable	Good 1st choice
	Ink deposit: Thin	Good 1st choice	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Suitable	Good 1st choice	Suitable
Mesh	Very coarse (<100 t.p.i.)	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Suitable
	Coarse (100-155)	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Suitable
	Medium(155-255)	Good 1st choice	Good 1st choice	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Suitable	Good 1st choice	Good 1st choice
	Med-Fine (255-305)	Good 1st choice	Suitable	Suitable	Good 1st choice	Good 1st choice	Suitable	Suitable	Good 2nd choice	Good 1st choice	Good 1st choice
	Fine (305-355)	Good 1st choice	Suitable	Suitable	Good 1st choice	Good 1st choice	Suitable	Suitable	Good 1st choice	Good 1st choice	Suitable
	Very fine (> 355)	Good 1st choice	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Good 1st choice	Good 1st choice	Suitable
Artwork	Textile, spot color	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable	Good 1st choice
	Textile, process color	Good 1st choice	Suitable	Good 1st choice	Good 1st choice	Suitable	Suitable	Suitable	Good 2nd choice	Suitable	Good 1st choice
	Graphics, spot color	Good 1st choice	Good 1st choice	Suitable	Good 1st choice	Good 1st choice	Suitable	Good 1st choice	Good 1st choice	Good 1st choice	Suitable
	Graphics, 4CP <65 lpi	Suitable	Good 1st choice	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Suitable	Good 1st choice	Suitable
	Graphics, 4CP >65 lpi	Good 1st choice	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Good 1st choice	Good 1st choice	Suitable
	Very fine line detail	Good 1st choice	Suitable	Suitable	Good 1st choice	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable
		Suitable	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable
Print Run	Less than 1000	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Suitable	Good 1st choice
	1000 – 10,000	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 2nd choice	Good 1st choice
	10,000 – 50,000	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Suitable	Good 1st choice
	More than 50,000	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Good 1st choice	Suitable	Good 1st choice

## Autotype Autosol Technical Specifications

Specification	Autosol Classic	Autosol XL	Autosol 8000	Autosol 7000	Autosol 6000	Autosol 2000	Autosol TX	Autosol XFT	Autosol 9000	Autosol ONE	
<b>Solvent resistance</b>	Excellent	Excellent	Superior	Excellent	Poor	Very good	Excellent	Very good	Very good	Superior	
<b>Humidity resistance</b>	Excellent	Excellent	Superior	Very good	Very good	Very good	Excellent	Good	Good	Superior	
<b>Water resistance</b>	Excellent	Excellent	Superior	Excellent	Excellent	Poor	Excellent	Poor	Poor	Poor	
<b>Durability</b>	Excellent	Excellent	Superior	Excellent	Very Good	Very good	Excellent	Good	Excellent	Very good	
<b>Solids content</b>	36%	34%	38%	34%	47%	34%	40%	36%	48%	36%	
<b>Sensitizer</b>	Diazo syrup	Direct Addition Diazo Powder: Add powder directly to the emulsion and stir to dissolve. Do not add water to the powder prior to adding to the emulsion.						Pre-sensitized			
<b>Stencil removal</b>	Use Autostrip Gel or diluted Autostrip Powder and rinse. Follow up with high pressure spray to thoroughly remove the stencil.										

## Autotype Autosol Estimated Exposure Times\*

Product	2KW Metal Halide @48"	3KW Metal Halide @48"	5KW Metal Halide @48"	125W Mercury Vapor @ 20"	1K Mercury Vapor @ 20"	UV Fluorescent Tubes @ 4"
<b>Autosol XL<sup>1</sup></b>	4-5 min.		2-3 min.		6-7in.	7-8 in.
<b>Autosol Classic<sup>1</sup></b>	3-5 min.	2-3 min.	1-2 min.	6-8 min.		5-7 min.
<b>Autosol 9000<sup>2</sup></b>	60-80 sec.	40-60 sec.	20-40 sec.	2-2½ min.		100-140 sec.
<b>Autosol 8000<sup>1</sup></b>	3-5 min.	2-3 min.	1-2 min.	6-8 min.		5-7 min.
<b>Autosol 7000<sup>1</sup></b>	3-5 min.	2-3 min.	1-2 min.	6-8 min.		5-7 min.
<b>Autosol 6000 &amp; 6000CL<sup>1</sup></b>	5-6 min.	3-4 min.	2-3 min.		7-8 min.	8-9 min.
<b>Autosol 2000<sup>1</sup></b>	4-5 min.	2-3 min.	1-2 min.	6-8 min.		5-7 min.
<b>Autosol ONE<sup>1</sup></b>	60-80 sec.		20-40 sec.			
<b>Autosol TX<sup>1</sup></b>	3-5 min.	2-3 min.	1-2 min.	6-8 min.		5-7 min.

\* Autosol XFT - See page 8 for recommended exposure times \* Data not available for all emulsions on all exposure units. Screen variables will significantly affect optimum exposure times. Use this chart as a starting point, and for the most accurate exposure estimates, run a test with the MacDermid Autotype Exposure Calculator whenever screen variables (mesh, coating thickness, etc.) change.

- 1 Test conducted with 230 tpi dyed (yellow) mesh coated 2+2 wet on wet.  
 2 Test conducted with 110 tpi dyed (yellow) mesh coated 2+2 wet on wet.

# The Autotype Autosol Family of Emulsions

Whether you run a high volume shop coating hundreds of screens per day or make just a few screens per week, there is an Autotype Autosol emulsion to fit your every need. The Autotype Autosol family of direct emulsions has been continually improved over the years to stay in step with the ever-changing and challenging job requirements of screen printers. So if you're looking for a high-resolution emulsion to print process color or fine lines, look no further. If speed or economy are your top priorities in selecting a stencil material, you will find an Autotype Autosol that fits the bill.



## Autotype WR Hardener A&B

To achieve maximum durability and water resistance, apply a 50:50 mix of the A and B components of Autotype WR Hardener to the processed and dried stencil. The stencil will be very difficult to reclaim. For a less permanent stencil use Hardener A on its own.

Availability: The A and B components are sold separately and are offered in 1-liter containers.



## Before and after you use that stencil...

At some point, most stencils will be removed and the mesh will be reused. For fast screen turnaround and to get the most out of your mesh, count on the complete range of mesh preparation and screen reclaiming products from MacDermid Autotype.

To download full color Autotype Screen Chemicals brochure in PDF format, visit our website at [www.macdermidautotype.com](http://www.macdermidautotype.com), or request a printed copy by phoning Customer Service at (800) 323-0632.

**YES WE CAN** <sup>SM</sup>

It takes more than innovative, high performance products and superior technical service to help our customers compete and win in today's global marketplace. It takes a total commitment to understanding their needs and the ability to provide the right solutions—every time.

When success is your only goal, trust the company that says "Yes We Can."

©2006 MacDermid, Inc. All rights reserved. All trademarks are the property of their respective owners.



MacDermid Autotype Inc.  
Customer Service Toll-Free: (800) 323-0632  
[www.macdermidautotype.com](http://www.macdermidautotype.com)