



Piezo Ink Jet Series 4600 for the Scitex Pressjet-W™ Digital Press

Description

3M™ Piezo Ink Jet Ink Series 4600 is a pigmented, solvent based ink approved for use with the Scitex Pressjet-W™ Printer to produce multi-color, permanent and durable graphics.

Product Replacement Note

Ink series 4600 replaces 3M™ Piezo Ink Jet Ink Series 1600.

Applications and Uses

Refer to the film product bulletin to determine the suitability of any particular film for your intended application.

Product Line

No.	Color
4691	Magenta
4692	Yellow
4695	Black
4696	Cyan

More Information on the Web

To find out more about piezo ink jet printing and software profiles that help ensure successful printing, visit our website at www.scotchprint.com.

If you are a Scotchprint® Graphics Authorized Manufacturer or 3M Piezo Ink Jet Registered Fabricator, you may also enter the extranet area: just click on *Login*, use your password, or to setup a new, free account, click *register*.

Compatible Films and Substrates

Note: For details on using a particular film or substrate for piezo ink jet printing, including warranties and recommended overlaminates and clear coats, please refer to that product's Product Bulletin or Instruction Bulletin 4.43.

4 mil Films

- 3M™ Controltac™ Plus Graphic Film IJ160-10
- 3M™ Controltac™ Plus Graphic Film Series IJ162-10
- 3M™ Scotchcal™ Graphic Film IJ3470
- 3M™ Scotchcal™ Changeable Film IJ3555
- 3M™ Scotchcal™ Perforated Window Graphic Film IJ8171
- 3M™ Scotchcal™ Permanent Graphic Film IJ8641
- 3M™ Scotchcal™ Temporary Graphic Film IJ8643

2 mil Films

- 3M™ Controltac™ Plus Graphic Film IJ180-10
- 3M™ Controltac™ Plus Graphic Film IJ180C-10
- 3M™ Controltac™ Plus Curtain-Sided Vehicle Film 190
- 3M™ Scotchcal™ Graphic Film IJ3630-20
- 3M™ Scotchcal™ Graphic Film Series IJ3650

Reflective Film

- 3M™ Scotchlite™ Plus Flexible Reflective Graphic Film IJ680-10
- 3M™ Scotchlite™ Plus Flexible Reflective Graphic Film IJ680CR-10
- 3M™ Scotchlite™ Reflective Graphic Film IJ5000
- 3M™ Scotchlite™ Reflective Graphic Film IJ5100R

Banner Material

- 3M™ Banner Material 8451

Note: For the full product names of the 3M products listed on this page, please see page 1.

Warranty Information

Graphic Performance Life

Only a Scotchprint® Graphics Authorized Manufacturer or 3M Piezo Ink Jet Registered Fabricator can produce 3M™ MCS™ Warranted Graphics.

For complete details on warranted constructions, please refer to the film's product bulletin. See 3M Related Literature, page 3, for information on how to obtain these bulletins.

Warranty and Limited Remedy

The following is made in lieu of all other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose: Ink series 4600 is warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in this Product Bulletin. 3M will replace or refund the price of any 3M materials that do not meet this warranty within the specified time periods. See the worldwide 3M™ MCS™ Warranty bulletin, which gives the terms and limitations of the warranty.

These remedies are exclusive. In no case shall 3M be liable for any direct, indirect, or consequential damages, including any labor or non-3M materials charges.

Printing with Solvent-Based Piezo Ink Jet Inks

To get the durability given in the Graphic Performance Life, follow the guidelines and procedures in Instruction Bulletin 4.43 for printing with piezo ink jet ink series 4600.

Note: It is very important to read and follow ALL instructions to achieve the best image quality.

Be sure the operator reads and follows "Understanding Printing with Solvent-Based Piezo Ink Jet Inks," also in Instruction Bulletin 4.43. An operator who understands pre-press operations and the relationship between film characteristics, printer setup, total ink coverage and drying time can produce graphics that achieve the performance expectations of the film and the customer. The operator should also work with the graphic designer and/or color conversion operator so there is a common understanding of print and media parameters.

Total Ink Coverage

Do not exceed the total ink coverage recommended for the film (see the film's Product Bulletin or Instruction Bulletin 4.43). Too high a total physical ink amount on the film results in media characteristic changes, inadequate drying, overlamine lifting, and/or poor graphic performance.

Drying

Caution

Always build enough time into your process to ensure adequate drying of the graphic. Poorly dried film may become soft and stretchy, and the adhesive may become too aggressive. This can cause difficulty when applying an overlamine, rolling the graphic, and applying the film. See the ink's Instruction Bulletin for more details.

About Scotchlite Reflective Graphic Film

Ink series 4600 can be used with approved Scotchlite reflective films; however, ink series 4600 is semi-transparent and may reduce the retroreflectivity of the film.

Close color matching of multi-sheet graphics is difficult on retroreflective materials because production lots may vary. Adjoining panels of reflective graphic film must be checked for both daytime and nighttime appearance.

Printer Cleaning and Routine Printer Maintenance

Caution

Before handling any chemical products, always read the container label and the MSDS.

Printer cleanliness is very important in the production of high quality, full color graphics. You must follow the routine maintenance schedule in the Scitex Pressjet-W Digital Press User's Guide.

We recommend that each customer assign a master operator that will have maintenance responsibilities. This person will be trained by the technician at printer installation and must use the recommended methods and safety measures.


You will need 3M™ Thinner CGS-50 for performing normal printer maintenance. For more aggressive cleaning, you may also use a mixture of 85% CGS-50 and 15% cyclohexanone. Cyclohexanone can be purchased at a solvent supply facility.

Shelf Life, Storage and Shipping

- Use the ink within one year of purchase.
- Store the inks at 32° to 80°F (0° to 27°C).
- Store the inks in the original container or in other sealed polyethylene containers.

- Ink series 4600 is classified as non-hazardous by the U.S. Department of Transportation. The inks are non-regulated when transported via ground and air.

Health and Safety

 Caution
When handling any chemical products, read the manufacturers' container labels and the Material Safety Data Sheets (MSDS) for important health, safety and environmental information.
To obtain MSDS sheets for 3M products:
<ul style="list-style-type: none"> • By fax, call 1-800-364-0768 in the US and Canada or 1-650-556-8417 for all other locations. • Electronically, visit us at http://www.3m.com/msds. • By mail, or in case of an emergency, call 1-800-364-3577 or 1-651-737-6501.
When using any equipment, always follow the manufacturers' instructions for safe operation.

Ventilation

Provide local and/or general exhaust ventilation in the printing drying areas to prevent a buildup of solvent vapors and to maintain levels of solvents below the limit for worker exposure. An experienced industrial ventilation engineer and/or a certified industrial hygienist can help evaluate your ventilation requirements and design based on your site process conditions. Scitex, the printer's manufacturer, also provides ventilation information. Please refer to their literature also.

Note: Additional environmental, health and safety information is available in EHS Bulletin 4600, which is available on our web site at www.scotchprint.com. See page 1 for how to access the site.

3M Related Literature

Before starting any job, be sure you have the most recent product and instruction bulletins.

Listed below is related 3M technical literature that may be of interest. You may view and print these Bulletins from our Web site at www.scotchprint.com, or order them via our Fax-on-Demand (FOD) system. Call one of these phone numbers to order the desired bulletins, and specify the FOD document number provided in the chart.

United States or Canada: 1-800-364-0768
International: 1-651-732-6506

Subject	Bulletin No.	FOD No.
Product Bulletins		
3M™ Controltac™ Plus Graphic Film IJ160-10	IJ160-10	4567
3M™ Controltac™ Plus Film Series IJ162	IJ162	4561
3M™ Controltac™ Plus Graphic Film IJ180-10	IJ180-10	4539
3M™ Controltac™ Plus Graphic Film with Comply™ Performance Series IJ180C-10	IJ180C-10	4540
3M™ Scotchlite™ Plus Flexible Reflective Graphic Film Series IJ680-10	IJ680-10	4541
3M™ Scotchlite™ Removable Reflective Graphic Film with Comply™ Performance IJ680CR-10	IJ680CR-10	4564
3M™ Scotchcal™ Graphic Film IJ3470	IJ3470	4543
3M™ Scotchcal™ Changeable Film IJ3555	IJ3555	4548
3M™ Scotchcal™ Graphic Film Series IJ3650	IJ3650	4544
3M™ Scotchcal™ Translucent Film IJ3630-20	IJ3630	4527
3M™ Scotchlite™ Reflective Graphic Film IJ5000	IJ5000	4566
3M™ Scotchlite™ Reflective Graphic Film IJ5100R	IJ5100R	4562
3M™ Scotchcal™ Perforated Window Graphic Film IJ8171	IJ8171	4545
3M™ Scotchcal™ Permanent Graphic Film IJ8641	IJ8641	4546
3M™ Scotchcal™ Temporary Graphic Film IJ8643	IJ8643	4547
3M™ Controltac™ Plus Curtain-Sided Vehicle Film 190	190	1007
3M™ Banner Material 8451	8451	4552
Instruction Bulletins		
Printing with piezo ink jet ink series 4600	4.43	6543
Warranties		
Worldwide 3M™ MCS™ Warranty Packet (includes all Commercial Graphics MCS Warranties)		9503
Worldwide 3M™ MCS™ Warranty Overview -Folder		9504
Scotchprint® Graphics Warranty (includes overview)		9505

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Fax-on-Demand Document Number 4582

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For the United Kingdom and Republic of Ireland

Health & Safety

Refer to the package label and the Material Safety Data Sheet for health, safety, and handling information on the products referenced in this bulletin. For 3M products, if necessary, you may contact our Toxicology/Product Responsibility Department on 01344 858000.

Important Notice to Purchaser

The 3M products described in this publication are covered by a 3M warranty and limitation of liability.

3M's warranty provides that if 3M finds that goods are defective in material or workmanship they will be replaced or the price refunded at 3M's option but note that 3M does not accept liability for other direct losses (except for personal injury or death) or consequential losses relating to defective products or from information supplied by 3M.

Purchasers and users of 3M products, and not 3M supplying companies, are always solely responsible for deciding on the suitability of the 3M product for their required or intended use.

Technical Assistance

For help on specific questions relating to 3M Commercial Graphics Division Products, contact your local Technical Service Representative.

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