



Beginning calligraphy students started (or should have started) with black ink on paper. The starkness of black marks on white paper clearly show the transitions from thin-to thick-to thin strokes, the obvious reason for using broad edged or pointed pens. If you are not concerned with the shape, proportions and ductus of the letters, you might as well just pick up a BIC. Without going into the chemistry of each medium, the following article gives basic information on ink, followed by other media used by lettering artists today.

With many well-known brands on the market, artists swear by their favorites. Below are some of these products used by scribes for general use. Information provided by manufacturers are listed when available. New products on the market will make this article obsolete; consider current basic information. This article concludes “The Write Series” of calligraphy basics: *Paper, Pen and Ink*.

## BLACK WRITING PRODUCTS

### Water Soluble Bottled Black Ink

- Composition: Carbon-based Ink: carbon particles (burned wood) + water + a binder (i.e., think about a cake: flour + milk + egg to hold the flour mixture and liquid together)
  - these inks are easily cleaned from dip pen nibs
  - some carbon-based inks will flow through fountain pens; others are too thick
- Note: a lot of fountain pen inks are dye-based, not carbon-based; some are staining, some may fade
  - inks not exhibiting opacity contain a lot of water; some of these inks can stay un-capped for a few days to thicken up

### Other Water Soluble Inks / Media for dip pens

- Sumi Ink – pine wood soot + binder + water; some inks are corrosive to nibs. Two favorites: Moon Palace, Best Bottle
- Gouache – dry pigment + binder + water made into a paste which is fed into a tube
  - \* Ivory Black (warm black) – black with brown undertones, originally named for the roasting of elephant tusks
  - \* Lampblack / Jet Black (cool blacks) – pure carbon, originally made from residual soot from oil lamps; some may yield a bluish tone when thinned down to a tint
  - \* Perylene Black – slight green undertones; a rich black
- Dry Pigment – powder + binder (i.e. gum arabic) + water; both raw minerals and chemically manufactured pigments; viscosity can easily be controlled for writing and/or painting; expensive investment, but will outlast your use; share cost w/a friend

### Waterproof Bottled Black Ink

- India Ink – Composition: Made from lampblack (vegetable

oil) + binder + water

- Waterproof Inks
  - usually have a shellac or varnish in them to seal off moisture. It's necessary to clean nibs frequently to keep ink build-up to a minimum
  - Acrylic Inks – synthetic color + polymer + water. Use only in dip pens with frequent cleaning

### Bottled Gall Inks

- historically made from acidic iron and oak galls, used extensively from the 5th-19th century, these inks can be problematic. Black gall inks can write gray, then turn a dense black. Historical samples show that galls ‘eat’ through paper - very damaging.
- There are brands advertised as ‘oak-gall-type inks’ (McCaffery); Fox & Quills has developed iron gall inks in a variety of beautiful colors w/less acidity, but they are still acidic, and may corrode nibs. Consider the project when using these gall inks.

### Asian Ink Sticks – Black

- The ultimate in carbon ink. In stick form, the soot and binder are molded into a block; grind stick in the well of an ink stone, using water as a lubricant to yield the desired writing consistency. Available in student and professional grades, along with a variety of color undertones. Chinese and Japanese. John Neal Bookseller lists explanations on individual products/color undertones.

### Asian Ink Sticks – Color

- Although considered pricey by most people, the cost can be shared by two people if buying one stick and cutting it in half. Chances are it will outlive your use.

## COLORED WRITING PRODUCTS

### Water Soluble Bottled Colored Inks

- Most water soluble colored inks are dye-based. Although available in a variety of colors, they are not as lightfast as quality gouache/watercolors; most are fugitive. They are good for card and/or reproduction work, but for formal or permanent work, they can fade with time.
- Geared for fountain pen use. Jet Pens ([jetpens.com](http://jetpens.com)) offers a wide range of bottled inks, along with other writing media that calligraphers use. They also provide product sheets w/their testings of various writing media.
- Walnut Ink – made from black walnuts, this ink is available in a bottled version or in crystal form, to control color density.
- Cartridge Ink for Pilot Parallel Pens – convenient to pop in and out, these dye-based inks are fugitive (except black). An alterna-

tive would be to fill the empty cartridges (using a syringe) with Winsor & Newton Calligraphy Ink (with the BLUE lids). These inks are more stable and flow through the Parallel Pens.

### Waterproof Bottled Colored Inks

- Most waterproof colored inks contain either shellac or varnish in them to make the liquid waterproof. Others are acrylic (polymer based) so they are also waterproof. Acrylic-based inks tend to be more stable due to the polymer in the chemical makeup of the liquid.

- i.e., Ziller Inks – lightfast, highly pigmented, neutral pH, using an acrylic co-polymer formula especially designed for calligraphers; available in 20 colors.

## OTHER WATER SOLUBLE MEDIA

### Tube Paints

- Gouache & Watercolors (Professional versions) – Winsor & Newton, Holbein, Daniel Smith and Golden products are always recommended. These companies stand behind their R&D; log onto their websites for explanations of their paints as to chemical composition, their systems for ‘series’ and ‘lightfastness’.

- They offer student grade products at lesser price points, but the artist sacrifices quality for quantity – these grades of products contain less true pigment while being augmented with a lot of filler material. One uses more pigment to hopefully achieve the desired look that a lesser amount of a quality product produces
- Even with quality paints, some colors are more fugitive than others. Look to labeling and online product information sheets available to print out for future reference

### Liquid Watercolor Options

- Dr. Martin’s Hydrus Watercolors – more body to their colors than some alternatives; advertised as generally lightfast
- Dr. Martin’s Radiant Watercolors – a thinner composition with vibrant colors, but NOT advertised as lightfast

### Crystal Options

- Walnut Ink – water soluble; can control intensity of the sepia tone when mixing from crystals; refer to info on jar

## GEL PENS & MARKERS

New products continue to emerge in the marketplace. Manufacturers originally marketed their colored/metallic markers for the craft industry, and these dye-based inks are not usually lightfast. Exception - Sakura Micron pens advertise lightfastness and pH neutral properties for conservation work. Again, do your research if using these products for professional work.

### A Test for Lightfastness:

It’s time consuming, but the best way to know if colors will withstand the test of time is to make bands of each color (identified), cover half of the bands w/black paper, and hang in a west or southern window in full sunlight for a month or two. Then check to see if the exposed portions of the color bands have yielded to the harsh effects of light.

Again, they are convenient and fun to use. But if you are producing an art piece for longevity for yourself, or more importantly, for a client, best practices dictate quality materials.

- Calligraphica Crystals – watercolor in crystals; add water for watercolor ink; no information on lightfastness

## WHITE WRITING PRODUCTS

### Gouache

- Permanent or Titanium White – bright white gouache which works well on dark paper
- Zinc White – a creamier white that is preferred when mixing with a color, for a tint or to brighten up a color when writing on dark paper

**Dr. Martin’s Bleedproof White** – originally used as a touch-up paint in the graphics industry, this semi-solid medium needs to be scooped out of the jar and mixed with water to a writing consistency; non-waterproof; regarded as a whiter ‘white’ than Titanium White gouache

**Dr. Martin’s Pen-White** – also mixes well with gouache

**Ziller ‘North Wind White’** – bottled ink preferred by a number of scribes for envelope work

## Winsor & Newton - Quality Control

Whether it’s gouache or the watercolor label to the right, a lot of very useful information about the products are printed on the labels:

**Series Number:** Series 1 being the least expensive to Series 5 being the most expensive

**Permanence Rating:** AA is extremely lightfast, A is also good; use B color sparingly; avoid C colors as they are quite fugitive (pinks/purples, etc.)

**Opacity:** some colors are more transparent than others

Some colors are also more staining than other, i.e. Alizarin Crimson, which can make correcting letters a little more challenging.

Reading a Professional Watercolour Tube Label



from the Winsor & Newton website

## COMMERCIAL METALLIC PRODUCTS

- Spectralite – variety of tints of acrylic metallic inks; waterproof
- Coliro (formerly Finetec) Pan Metallic Inks – manufactured with mica powders that will not tarnish; available in a variety of golds, silvers, copper and a vast variety of metallic colors; water soluble

- Dr. Martin’s Iridescent Calligraphy Colors – waterproof and lightfast
- Winsor & Newton Designer Gouache – water soluble
- Holbein Designer Gouache – water soluble
- Golden Acrylic Metallic Paints – waterproof
- Pearl Ex Powders – mix w/gum arabic & water; water soluble
- Schmincke Pan Watercolors – silver and gold; water soluble

NAME	PROPERTIES	COMMENTS
<b>Water Soluble Inks*</b>		
Higgins Eternal	good black for practice	not the blackest black, but stable
McCaffery’s Prairie Night	good for reproduction work	dries with a light sheen
Winsor & Newton Calligraphy Ink	the BLUE cap	works in fountain pens; pigmented, non-clogging
Pelikan 4001	black and variety of colors	fun to use, but colors are not lightfast
Moon Palace Sumi	Green lid rectangular bottle	very dense black; won’t rust metal nibs too much
Walnut Ink	in bottles & crystals	crystals allow for various color intensities
Japanese/Chinese Ink Sticks	different undertones	read comments in John Neal Booksellers catalog
Gouaches by W&N, Holbein, etc	blacks, colors	check for lightfastness on tubes
Nicker Paints	sign painting paint; water soluble	recommended by John Stevens for brushwork
Various Fountain Pen Inks	blacks are advertised as lightfast	colors from manufactures don’t mention lightfastness
Coliro (Finetec) Metallics	variety of golds, silvers, copper	also a wide range of colored metallics
Bister Ink Powder	set of 8 colors; earthy tones	a favorite of Amity Parks; mix with water
Tube Watercolors	W&N, Holbein, Daniel Smith, etc.	easy to reconstitute when dry on a palette
<b>Waterproof Inks*</b>		
Dr. Martin’s India Ink	extremely opaque	dries to a gloss finish
Calli Inks	pigmented/waterproof	black and a variety of colors
FW Acrylic Inks	considered permanent; thin w/water	black, colors; will bond to non-porous surfaces
Dr. Martin’s Bombay India Inks	lightfast; waterproof	a favorite of Mike Gold
Dr. Martin’s Spectralite	liquid acrylic metallics	the Private Collection - various metallics, black, white
Dr. Martin’s Iridescent Callig Colors	waterproof; lightfast	available in two different sets
Vermilion Sumi Inks	lightfast/water resistant	wash out tools frequently
Moon Palace White Ink	a sumi bottled ink	dries opaque
Golden Acrylic Paints	full body, high flow, etc.	wide variety of uses: backgrounds, lettering, painting
* The products in this article and above chart show a wide range of black and colored media, water soluble and waterproof. An important consideration is to use fewer, but higher quality supplies if one is on a tight budget. Quality products + good artist paper + proper tools = GOOD WORK! Support our calligraphy vendors, always on the lookout for “the next best thing”!		

## RESOURCES

*As soon as an article is published, new products appear, and some become obsolete. Below are some local and mail order resources:*

### LOCAL - Houston Area:

Texas Art Supply - 3 locations  
 Art Supply - Main Street  
 Jerry’s Artarama -Taylor Street

### Calligraphy Mail

#### Order Suppliers:

- \*John Neal Bookseller (JNB)  
johnnealbooks.com
- \*Paper & Ink Arts  
paperinkarts.com
- \* Daniel Smith - watercolors  
danielsmith.com

### Other Art Sources:

- \* Cheap Joe’s - cheapjoes.com
- \* Dick Blick - dickblick.com
- \* Jet Pens - jetpens.com
- \* Utrecht - utrechtart.com
- \* Amazon - amazon.com
- \* asianbrushpainter.com

### Online Product Information

- \* Winsor & Newton - winsornewton.com - wealth of info on their quality control; sign up for free emails on products/uses
- \* Holbein Gouache & Watercolors - quality media - available: locally/online
- \* Daniel Smith - danielsmith.com vast quality control info on products
- \* Golden Paints - goldenpaints.com extensive website with product descriptions and quality control information

**Note:** Both Amazon and John Neal Bookseller carry Daniel Smith’s ‘watercolor dots’ sample cards, a good way to try a variety of bits of color without having to purchase individual tubes. One of the charts that John Neal

carries is Heather Held’s favorite colors for her beautiful floral designs. John Neal also sells a ‘gold ink sampler set’ and a ‘gold gouache sampler’.