Zone VI Data Sheets

Zone VI Hypo

(Sodium Thlosulphate)

Contents: Makes one gallon

Directions for mixing: While constantly stirring slowly add the contents of this package to 3½ qts. of water at 80 to 90 degrees. When hypo has dissolved add cold water to make one gallon and stir until uniform.

Directions for use: After the first fixing in Zone Vl Fixer (or other) prints may be stored in a water bath and then all fixed together in hypo at the end of a printing session. Use full strength. Fix for 3-5 minutes with intermittent agitation. Transfer prints from hypo tray directly to hypo clearing agent-toner tray. Do NOT rinse between hypo and toner. Prints may also be fixed once washed and dried and then submitted to a second fixing bath as above at any future time. It is a good idea to soak dry prints for ten minutes before second fixation.

For photographic use only. Keep out of reach of children. If swallowed induce vomiting and call a doctor. Avoid breathing dust.

ZONE VI STUDIOS INC, Newfane Vermont 05345-0037

Zone VI Studios Print Developer

A superior formula for the production of highest quality black and white prints.

Prepare a stock solution: While constantly stirring slowly add the contents of small packet to about 3½ qts. (3 liters) of water at no less than 110°F, slowly add the contents of large packet while continuing to stir. Add cool water to make one gallon (3.8 liters). Stir until solution is uniform.

Directions for use: Dilute 1 part stock with 3 parts water and develop prints for two minutes at 70°F.

For photographic use only. Keep out of reach of children. If swallowed induce vomiting and call a doctor. Avoid breathing dust.

ZONE VI STUDIOS INC, Newfane Vermont 05345-0037

Zone VI Brilliant VC

Double Weight Glossy Photographic Paper

ZONE VI BRILLIANT VC is made in France to our Specifications by one of the world's oldest manufacturers of light sensitive materials. It is the finest Variable Contrast paper that was specifically designed for cold light enlargement. Nevertheless, even when used with condenser or color enlargers, comparative prints illustrate its superiority to existing VC papers.

In spite of the filter manufacturer's desire to simplify Variable Contrast printing by numbering the filters, the true equivalent contrast grades for different brands can only be determined by test. Why? Because all the manufacturers tend to have slightly different interpretation of paper grade and grade spacing as specified by the International Standards Organization (ISO). In addition, print contrast will vary if the light is from cold light or condenser, if different developers are used, or if the contrast range of your negative differs from that of another photographer's.

Follow this procedure to find out what you need to know: (This procedure should be followed for ANY new variable contrast paper.) If you have been printing on graded paper, or another VC paper, first create a standard print on grade 2 or with a number two filter. Next, using a number two filter, make a print on the new VC paper. See how close you come to matching the contrast of your standard grade 2 print. Then select a higher or lower numbered filter, if required, to match the new paper to your standard print. Repeat this procedure for each grade of paper or with each filter that you normally use; don't assume that grade spacing is uniform on either the old or the new paper. When you are finished you will want to either re-label your filters to indicate the actual grades they will provide for the new paper, or, if you are using more than one VC paper, make a wall chart indicating the filters that give the same contrasts with the various papers.

ZONE VI Studios, Inc., Newfane, Vermont 05345, 802-257-5161

Zone VI Brilliant VCIII

Guidelines

Brillant VCIII-FB is a variable contrast photagraphic paper of exhibition characteristics. Contrast is changed by the use of selective contrast filters in a range from 00-5, or by variable contrast light sources that produce a range of blue (or magenta) and green (or yellow) light. By varying the relative amounts of these spectra Brilliant VCIII-FB can therefore produce photographs from an extremeley wide range of negative contrasts.

Storage:
Always store Brillant VCIII-FB in a cool dry place and wrap in the black plastic bag when not in use.

Processing:
Any conventional black and white paper developer may be used with Brillant VCIII-FB. Each developer will produce different characteristics and must be chosen based on personal preferences and/or desired results. Developing times can be varied between 90 seconds and 6 minutes.

Use a 2% acid stop bath for a minimum of 10 seconds but not longer then 30 seconds.

Use conventional fixing procedures as you would for any fiber based paper. Archival fixing methods should include a non-hardening hypo and a washing aid.

Toning:
Zone VI Studios recommends toning for archival permanence and image enhancement with Kodak Rapid Selenium Toner (or equivalent) at a dilution of 1:20 for 3 to 10 minutes or until the desired color is achieved.

Washing:
Wash Brillant VCIII-FB for a minimum of 60 minutes. Shorter wash times may be achieved by using washing aids and an efficient archival washer.

Drying:
Zone VI Studios recommends the use of nylon or plastic screens for air drying. Dry prints face up on the screens after eliminating excess surface water. Prints may be flattened after drying with a dry mount press or the Zone VI Print Flattener.

Replacement:
Zone VI Studios will replace or credit (at our discretion) the value of any paper found by use to be defective in manufacture. Our liability is confinded to the value of the paper only. In every case we will require samples and the unused portion of the paper in question.

Specifications

A fiber based, double weight, glossy, variable contrast enlarging paper with an 'anchored' type of optically brightened emulsion that is designed to withstand extended wet times.

Base/image color:	White/neutral (dependent on developer/toner used)
Dry thickness:	2.0 minutes (usable between 1½ and 3½ minutes).
Recommened safelight:	Kodak OC (or equivalent). If reflected off walls/ceiling, use with a 15 watt lamp. If direct illumination is desired, use a 7½ watt lamp a minimum of 4 feet away (keep exposure to four minutes or less if possible).
ISO paper speed:	white light - P500 filters #0 through #3½ - P200 filters #4 through #5 - P100 (Measured through ILFORD MULTIGRADE filters)
ISO contrast ranges:	R170 @ minimum attainable contrast R100 @ grade #2 R40 @ maximum attainable contrast. These are approximate ranges for a VC coldlight source. An unfilted tungsten source will be slightly lower in contrast, ie a higher ISO number. An unfiltered (or 'single grid') coldlight source will yield contrast dependent upon its color.
Dichroic starting points:	(for bessler, LPL/Saunders or Omega heads) lowest contest: 200Y grade 0: 90Y grade 1: 50Y

grade 2: no filtration
grade 3: 30M
grade 4: 80M
highest contrast: 200M

ZONE VI Studios Calumet Photographic, 890 Supreme Drive, Bensenville, Illinios 60106

Zone VI Brilliant

Double Weight Glossy Photographic Paper

ZONE VI BRILLIANT is a bromide paper made in France to our specifications by R. Cuilleminot Boespflug & Cie. Established in 1858, they are the oldest manufacturers of light sensitive photographic materials in the world. Photographers will recognize in Brilliant the superb, silver-rich papers of bygone years. This paper is superior in richness and brilliance to any paper currently available.

BRILLIANT has no peculiar habits; it may be developed between 1½ and 5 minutes in any standard developer. Two minutes is our standard time. ZONE VI print developer diluted 1-3 will improve crispness in the lower values of any paper and is especially recommended. Follow development with a 15-30 second rinse in an acetic acid stop bath. (Add 1½ oz. of 28% acetic acid to one quart water.) Indicator stop baths are not recommended because the indicator shows too late that the bath has been ineffective for some time.

Fix the paper for five minutes with intermittent agitation. ZONE VI Print and Film Fixer is recommended for its tendency to wash out easily, dry prints flatter, and provide a compatible surface for easy spotting.

Toning in Kodak Rapid Selenium will enhance the beauty of any print on any paper and the coating of selenium over the silver grains will assure a longer life for the print. To tone set up four trays. To the left, a water bath to hold the prints to be toned; next, a tray containing one gallon of Sodium Thiosulphate (hypo) and then a tray containing one gallon of working solution of Hypo Clearing Agent to which has been added about four ounces of Kodak Rapid Selenium toner. The last tray is a running water bath used to hold the toned prints before a final washing.

Toning times in the trays are; Three to five minutes with intermittent agitation in the Hypo followed by about three to ten minutes in the toner tray with constant agitation. do not rinse between the hypo and toner. Check the toning progress from time to time against an untoned print until the color is what you want. We like just a trace of cool purple. Prints with lots of middle gray values achieve proper tone more quickly than prints of greater contrast.

Refined contrast control to achieve an intermediate grade between listed paper grades is easily accomplished if required. By setting up a tray of Kodak Selectol Soft developer and developing a print made on, say, #3 paper for thirty seconds or so before transferring the print to Dektol, ZONE VI, or any other standard developer, about a grade 2½ will be achieved. Adjusting the time in the two developers permits an infinite range of contrast grades between the higher grade and the next lower grade. Remember to develop first in the Selectol Soft; then transfer to the standard

developer. Don't rinse between developer's. Don't mix the developers.

Any grade of paper can be increased in contrast and considerably "freshened" by the addition of one ounce of Benzotriazole per quart of working solution. Benzotriazole is a restrainer that slows the development of the higher print values and produces very clean whites and an overall impression of brightness. The print color is also cooled (toward blue) slightly. Many expert printers use Benzotriazole additive in all of their work.

Wash the prints for 1½ hours in a ZONE VI Archival Print Washer for greatest permanence. If other washers are used, test with HT-2 solution as described in "Zone VI Workshop" to see when adequate washing is achieved. Dry prints face down on plastic window screens.

For more detailed information regarding advanced printing technique, please see Zone VI Newsletters 3, 5, 7, 8, 10, 32, 13, 14, 16, 20, 21, 22, and 28.

ZONE VI Studios, Inc., Newfane, Vermont 05345, 802-257-5161

Return to Jack's Photographic and Chemistry Site

Send Comments to: jackspcs@hotmail.com

Revised: May 30, 2001