



## KODAK PROFESSIONAL BW400CN Film: Film Matrices for KODAK PROFESSIONAL Video Analyzing Computer (PVAC) XL-CCD and Series 3, 4, and 5

### 1) Description

This CCPR is for use with KODAK PROFESSIONAL BW400CN Film and KODAK PROFESSIONAL PORTRA ENDURA Paper and KODAK PROFESSIONAL SUPRA ENDURA Paper.

**Note:** CCPR VALUES ARE NOMINAL. THEY SHOULD BE USED AS A STARTING POINT FROM WHICH CUSTOMERS MAY OPTIMIZE THEIR ANALYZER/PRINTER SYSTEM BASED UPON THE PLANT'S FILM POPULATIONS.

Scaled-PDEN updates are provided for KODAK Analyzers and Printers operating in Analyzer or Photocell-Integration mode. In Analyzer Mode (i.e., inputting analyzer numbers from KODAK PROFESSIONAL Video Analyzing Computer to the printer) PDEN updates are provided for PVACs equipped with the Charge Coupled Device (CCD) scanner, and consequently, PDENs for the corresponding printers are not required. In Photocell-Integration mode, PDENs are provided for inputting into the printers.

After inputting the PDENs into the equipment, system print balance, neutral, and chromatic corrections should be checked (using the appropriate KODAK PROFESSIONAL BW400CN Printer Control Negative Set, see below) and reset to lab aims as necessary. A slight paper speed compensating adjustment may be required, through the dead-heat balancing filtration settings (to maintain dead heat for the primary-film type.)

The following scaled-PDEN coefficient values are listed for direct entry into the appropriate equipment. The formats shown here attempt to emulate what the user will see on the equipment-interface screen.

### 2) Film Matrices

#### KODAK PROFESSIONAL PORTRA ENDURA and SUPRA ENDURA Papers PVAC XL-CCD

1-3	1.047	0.032	-0.013
4-6	-0.008	0.984	0.050
7-9	0.116	0.058	0.844

#### KODAK PROFESSIONAL PORTRA ENDURA and SUPRA ENDURA Papers PVAC Series 3, 4, and 5

1-3	1.183	0.010	-0.014
4-6	0.023	1.083	-0.032
7-9	-0.085	0.162	0.903

**PDEN Matrices / KODAK 312 Color Printers and Printers Equipped with KODAK Digital Printer Controllers  
and KODAK ACCUDATA Printer Controllers**

<b>312/KDPCU Printers with Mod 7 Cell<sup>[a]</sup></b>	
<b>KODAK PROFESSIONAL PORTRA ENDURA and SUPRA ENDURA Papers</b>	
1, 1	-206
2, 1	61
3, 1	11
1, 2	-22
2, 2	-394
3, 2	-37
1, 3	2
2, 3	-15
3, 3	-213

<sup>[a]</sup>If an "out of range" message occurs while entering any of these values, contact your Technical Sales Representative (TSR).

<b>Printers with ACCUDATA Printer Controllers</b>	
<b>KODAK PROFESSIONAL PORTRA ENDURA and SUPRA ENDURA Papers</b>	
1 >	85
2 >	-21
3 >	-6
4 >	8
5 >	152
6 >	15
7 >	-1
8 >	8
9 >	92

### 3) Printer Control Tools

The following KODAK PROFESSIONAL BW400CN Printer Control Negative Sets are available:

**KODAK PROFESSIONAL BW400CN Printer Control Negative Set (size 135) CAT 156 8286**

The 135-size set includes a five negative exposure series, a guide print and an instruction sheet.

**KODAK PROFESSIONAL BW400CN Printer Control Negative Set (size 120) CAT 114 4419**

The 120-size set features a five negative exposure series.

To order, call Advertising Distribution at 1-800-234-0426.

### 4) Printing

**PRINTING RECOMMENDATIONS FOR KODAK PROFESSIONAL BW400CN Film**

**Analyzer Mode Setup:**

1. Analyze the BW400CN Normal and Slope printer control negatives on the PORTRA Film channel and record values. (See analyzer offsets.)
2. Print the Normal and Slope negatives, using the analyzer values recorded in step 1.
3. Adjust printing values to achieve a satisfactory match with the reference print (135-size only) or adjust printing values until a satisfactory balance is achieved.
4. Prepare a new analyzer film channel for use with BW400CN film and enter the appropriate BW400CN Film Matrix. This will be the PORTRA film matrix.
5. Adjust the analyzer balance and slope on the film, AIM POINT screen until the analyzer display matches the prints from step 3.

6. Print and process a limited sample of production negatives to confirm the new balance is satisfactory.

**Integration Mode Setup:**

1. Prepare a new film channel to use with KODAK PROFESSIONAL BW400CN Film by transferring the settings from your KODAK PROFESSIONAL PORTRA Film channel to an unused channel.
2. Input the starting film balance offsets, slope offsets and film matrix for BW400CN. (See tables below) The matrix will be the PORTRA film matrix.
3. Set SFS to zero. Set chromatic correction to 100%. (Using the KODAK PROFESSIONAL PORTRA Color Exposure Set, Cat. No. 195 8466, for adjusting the printer chromatic correction is recommended.)
4. Set the FPO (Film Population Offset) to 0, 0, 0, Dens for the "N" negative.
5. Print the BW400CN "Normal" Printer Control Negative on the new channel and process the paper.
6. Compare your Normal test print with the reference print (135-size only) or make any balance adjustments required to achieve a satisfactory aim print. The recommended starting balance is .75 .75 .75.
7. After achieving a satisfactory Normal balance, print the Normal, Under, and Over negatives until a satisfactory balance is achieved.
8. Print and process a limited sample of production negatives to confirm the new balance is satisfactory.

**PRINTING OFFSETS for KODAK PROFESSIONAL BW400CN Film**

**Note:** We recommend that a separate printing channel for BW400CN be set up for integration printers and video analyzers. These are starting values only and can be used to adjust initial set-up and balance of printers and analyzers. All values are deltas from KODAK PROFESSIONAL PORTRA 160NC Film.

**CCD PVAC using PORTRA channel:** Subtract 1G and add 1B to the PORTRA 160NC analyzer values.

**ENLARGER OFFSET :** Correction in CC's where 30 DENSITY UNITS = 1 f stop Add +4D and +5G translator units (increase exposure by .04 Log E and Magenta filtration by .05 Log Density)

**PRINTER LAMPHOUSE:** Increase exposure time by .04 Log E or 9%. Increase magenta filtration by 5 photometer units.

**INTEGRATION PRINTERS:** Adjusted for 50% CHROMATIC CORRECTION / Add 2 buttons Green and 1 button Yellow. Corrections are listed in button increments. Color buttons are equal to .025 Log E.

Add to PORTRA 160NC corrections for balance and slope starting corrections:

**ACCUDATA XL starting offsets:** Add to PORTRA 160NC corrections on FILM BALANCE AND SLOPE screen.

N	COR	0D	-5R	+10G	0B
U	COR	0D	+3R	0G	+2B
O	COR	0D	-4R	+2G	-1B

**312/KDPCU starting offsets:**

FBL (code 04)	+5	-10	0
NEU (code 06)	+20	0	+10
NEO (code 07)	+20	-10	+5

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Kodak Professional Division  
EASTMAN KODAK COMPANY - Rochester, NY 14650

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**End of Data Sheet**

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