SPECIFICATION FOR PHOTOGRAPHIC FILM FOR MISCELLANEOUS PURPOSES

PROPERTY NUMBERS: 240494 257982 240508 258831

NOTE: SEE ALSO GPO PROPERTY #240516

General Requirements

These films are to be used in GPO's Negative Section to produce high quality negatives for both line work and halftones. The films must be used in conjunction with photographic developer made by the same manufacturer as a "system". This will insure high quality results and ease of trouble-shooting, by utilizing the appropriate developer with the film. The system of matched films and developer must be capable of producing high speed, high contrast line and halftone negatives in a process camera.

Procurement awards for these films must be made in conjunction with the award for developer (Property #240516) in order that the correct amount of developer (according to manufacturer's recommended replenishment rate) is on hand to process the total number of rolls of film that are ordered. For award purposes, the total price of all rolls of film and developer necessary for processing the film should be utilized. The film shall have a shelf life of one year after receipt.

Specific Requirements

Property Number 240494 257982 240508 258831	<u>Width of Roll</u> 508 mm (20") 610 mm (24") 305 mm (12") 457 mm (18")	<u>Clear or Matte Finish</u> clear clear clear matte
Film length	61.0 m (200')	
Winding	emulsion side out, film taped to core	
Inside diameter core	71.9 mm (2.832")	
Developing time	45 seconds max	
Developing temperature	24-38°C (75-100°F)	
DMax	3.50 min	
Base density	0.10 max	

Contrast For line work, utilizing a Stouffer 14-step scale, a solid step 3, gray step 4, and clear step 5 should be achievable.

Fine lines Lines on copy 0.076-0.102 mm (0.003-0.004"), reproducible without any breaks.

- **Halftones** When using a positive magenta 133-line screen, film must be able to hold a 10% highlight dot and a 90% shadow dot. The dots must be clean, crisp, and sharp throughout the entire range without evidence of a "halo", fuzziness or veiling.
- Stability Developer must be stable over a period of 5 days minimum with no changes in negative quality.

Testing and Sample Requirement

The manufacturer is required to supply three (3) rolls of film with the appropriate amount of developer (according to the manufacturer's recommended replenishment rate) for preliminary testing. If initial results are satisfactory; GPO will purchase further film and developer for more extensive testing prior to placing product on qualified product list. Films and developer are required to meet specifications when using the following equipment:

Process Cameras

Dainippon Screen	C-475-D			
Klimsch Autovertikal	T-RP			
Langston Monotype Overhead Camera (GPO #8194)				
Chemco Marathon	Model 1211			
Processors				
LogEtronic LogE	(GPO #3616, 3618, 3620)			
LogEtronic Model	LD2600A			
Kodak Kodamatic	710			

Qualified Product List

The following products have been tested and comply with the current specification:

Kodak Ultratec Konica 6640 tetrastige "EO" Kodak S0268 Anitec Reprodot RH4 Anitec Newsdot Polychrome Millenium 3000 - PXL4

AGFA QOC-4

Kinica HRC-100E Tetrasige Camera Film

Date of Last Revision: December 4, 1992

SPECIFICATION FOR PHOTOGRAPHIC DEVELOPER & REPLENISHER

PROPERTY #240516

NOTE: SEE ALSO GPO PROPERTY NUMBERS 257982, 240508 AND 258831

GENERAL REQUIREMENTS

Developer is to be used in GPO's Negative Section to produce high quality negatives for both line work and halftones. The developer must be used in conjunction with photographic film made by the same manufacturer as a "system". This will insure high quality results and ease of trouble-shooting, by utilizing the appropriate developer with the film. The system of matched films and developer must be capable of producing high speed, high contrast line and halftone negatives in a process camera.

Procurement awards for this developer must be made in conjunction with the award for films (Property Numbers 240292, 257982, TBA and 258831) in order that the correct amount of developer (according to manufacturer's recommended replenishment rate) is on hand to process the total number of rolls of film that are ordered. For award purposes, the total price of all rolls of film and developer necessary for processing the film should be utilized.

SPECIFIC REQUIREMENTS

DEVELOPING TIME	45 sec	conds max
DEVELOPING TEMP	ERATURE	24-38°C (75-100°F)
DMAX	3.50 m	in
BASE DENSITY	0.10 m	nax
CONTRAST	For line work, u should be achie	tilizing a Stouffer 14-step scale, a solid step 3, gray step 4, and clear step 5 evable.
FINE LINES	Lines on copy	0.076-0.102 mm (0.003-0.004"), reproducible without any breaks.
HALFTONES	When using a positive magenta 133 line screen, film must be able to hold a 10% highlight dot and a 90% shadow dot. The dots must be clean, crisp, and sharp throughout the entire range without evidence of a "halo", fuzziness or veiling.	
STABILITY	Developer mus quality.	t be stable over a period of 5 days minimum with no changes in negative

MSDS for developer/replenisher must be provided

TESTING AND SAMPLE REQUIREMENT

The manufacturer is required to supply three (3) rolls of film with the appropriate amount of developer (according to the manufacturer's recommended replenishment rate) for preliminary testing. If initial results are satisfactory, GPO will purchase further film and developer for more extensive testing prior to placing product on qualified product list. Films and developer are required to meet specifications when using the following equipment:

Process Cameras Dainippon Screen C-475-D Klimsch Autovertikal T-RP Langston Monotype Overhead Camera (GPO #8194) Chemco Marathon Model 1211

<u>Processors</u> LogEtronic LogE (GPO #3616, 3618, 3620) LogEtronic Model LD2600A Kodak Kodamatic 710

QUALIFIED PRODUCT LIST

THE FOLLOWING PRODUCTS HAVE BEEN TESTED AND COMPLY WITH THE CURRENT SPECIFICATION:

AFGA QUANTA ONE Konica 860 tetrastige

SUPPLIERS: G E RICHARDS

PITTMAN AND COMPANY

PROCUREMENT WORKSHEET

The attached worksheet is to be used for procurement of this item with photographic film (GPO Property 257982, 240508 and 258831).

NOTE: Award will be made in aggregate to the lowest, responsive bidder.

Calculation of total square inches of film ordered:

Rolls Ordered Per Roll of	uare Inches Square Inches Film	
257982 x 240508 x	48,000 = 57,600 = 28,800 = 43,200 =	

TOTAL SQUARE INCHES OF FILM ORDERED = (A)

Contractor will state the required information below in order to determine the amount of developer/replenisher that will be supplied in order to process ALL of the film ordered above.

Information should be supplied by the contractor based on line exposure (75% exposed film) and a developer tank capacity of 27 liters (7.1 gallons). ALL INFORMATION REGARDING REPLENISHMENT RATE AND DILUTION MUST BE SUPPLIED ON A SPECIFICATION SHEET FOR THE DEVELOPER/REPLENISHER WITH THE BID.

DEVELOPER/REPLENISHER DILUTION:

(B) parts developer/replenisher concentrate to

(C) parts water

(This dilution constitutes the "working solution")

REPLENISHMENT RATE:

(D) milliliters of "working solution" per square inch of film processed.

SIZE OF CONCENTRATE DRUM:

(E) gallons of developer/replenisher concentrate per drum

Calculation of TOTAL NUMBER OF DRUMS REQUIRED to process all rolls of film ordered (round UP answer to nearest whole number):

TOTAL NUMBER OF DRUMS REQUIRED TO = $(A) \times (D) \times (B + C) \times 0.0002641794$ PROCESS ALL ROLLS (E) OF FILM ORDERED

TOTAL NUMBER OF DRUMS REQUIRED TO = PROCESS ALL ROLLS OF FILM ORDERED Where: A = total square inches of film ordered B = parts of developer/replenisher concentrate for dilution

C = parts of water for dilution

D = replenishment rate in milliliters per square inch of film

E = gallons of developer/replenisher concentrate per drum 0.0002641794 = factor for gallons per milliliter