

USING STANDARD

STANDARD is the basic film developer in the SPRINT B&W processing system. All solutions for this process are in liquid concentrate form. One liter of STANDARD concentrate will make 10 liters of working solution to develop at least 50 rolls of film, or enough replenished solution to develop 110 rolls. Directions on this label are for basic negative processing.

HOW TO MIX

Dilute STANDARD concentrate 1:9 with water to make the desired volume.

FOR EXAMPLE: 100ml STANDARD B&W Film Developer Concentrate
+ 900ml Water
1000ml STANDARD B&W Film Developer Working Solution

PROCEDURE STEPS FOR B&W NEGATIVE FILMS

Step	Procedure	Timing
Step 1:	Water Pre-Wet	1 Minute(s)
Step 2:	Develop	See DEVELOPMENT Below
Step 3:	Stop	1 Minute(s)
Step 4:	Fix	3 Minute(s)
Step 5:	Water Pre-Wash	1 Minute(s)
Step 6:	Remove Fixer	3 Minute(s)
Step 7:	Water Wash	5 Minute(s)
Step 8:	Stabilize	1 Minute(s)
Step 9:	Squeegee & Dry	

Use all solutions at the temperature selected for DEVELOPMENT

AGITATION

Agitate continuously for the first minute of each step, and for 10-15 seconds of each minute thereafter. When development time is less than 6 minutes, agitate for 10-15 seconds of each half-minute thereafter; when development time is less than 3 minutes, agitate continuously. Use only enough solution to cover reels, leaving an air space for thorough agitation with bubbles.

WATER WASHES

Wash films with a complete exchange of water(empty & refill) three times per minute, even with automatic washers.

CAPACITY & REPLENISHMENT

1 liter of STANDARD 1:9 working solution will develop 400 square inches of film (5 rolls of 35mm 36 exposure or 120 film). With replenishment as directed, 1 liter of working solution will process ten times this amount of film.

To renew a volume of working solution which has been used to capacity, add STANDARD concentrate to it in the following proportions:

7.5ml for each 35mm, 36 Exposure or 120 Roll
4.5ml for each 35mm, 20 Exposure Roll
1.0ml for each 10 in ² Sheet Film

This replenishment returns the working solution to its fresh working condition and capacity. When replenished developer is used to capacity it may be replenished again, repeatedly, until a total of 4000 square inches has been developed per liter.

DEVELOPMENT

To find a Time and Temperature for development, follow these steps.

Step 1: Find the Chart Letter for your film type using the chart below.

MINIMUM CHART LETTER RECOMMENDATIONS *

Agfa		Ilford		Kodak	
Apx100	N	Delta100	N	125PX	N
Apx400	R	Delta400	P	400TX	O
Fuji		Delta3200	S**	100TMX	O
Acros100	O	FP4 +	N	400TMY	P
NeopanSS100	N	HP5 +	O	3200TMZ	S**
Neopan400	N	PanF +	N	320TXP	N
Neopan1600	P	SFX200	O	** Recommend 2:8 at 75°	

* These letters are recommended for films exposed in direct sunlight with high quality equipment to produce negatives for printing with a condenser enlarger on variable contrast paper with a #2 1/2 filter. See our website for a more comprehensive chart.

Step 2: Using your chart letter, find a convenient combination of time and temperature in SPRINTS development timing chart below. Use any temperature 18-25°C / 64.5-77°F.

SPRINTS DEVELOPMENT TIMING CHART

Chart Letter	18°C / 64.5°F	20°C / 68°F	22°C / 71.5°F	24°C / 75°F	
	min:sec	min:sec	min:sec	min:sec	
M	9:15	7:30	6:00	5:00	M
N	10:30	8:30	7:00	5:30	N
O	12:30	10:00	8:00	6:30	O
P	14:00	11:30	9:15	7:30	P
Q	16:00	13:00	10:30	8:30	Q
R	18:30	15:00	12:30	10:00	R
S	21:00	17:00	14:00	11:15	S

For a more comprehensive time and temperature chart, visit our website.

SHELF LIFE

Stored at 25°C / 77°F or lower, away from strong light, STANDARD Film Developer has the following shelf life:

Concentrate	at least	Diluted 1:9	at least
Unopened	12 Months	Full container	1 Month
Opened air free	6 Months	With up to 25% air	1 Week
Opened w/ up to 25% air	3 Months	In open tray	24 Hours

WARNING: SENSITIZER MAY CAUSE ALLERGIC REACTIONS OR ASTHMA. HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. PROLONGED EXPOSURE MAY BE HARMFUL. MAY CAUSE MILD SKIN AND EYE IRRITATION.

PRECAUTIONS

Avoid contact with eyes, skin or clothing. Do not swallow. Avoid breathing vapor or mist. Wear chemical resistant gloves and apron (butyl rubber) and safety glasses with side shields or chemical goggles. Ensure darkroom is ventilated with an exhaust fan to remove vapors. Wash thoroughly after handling, and before eating, drinking or smoking.

HANDLING, STORAGE AND DISPOSAL

Keep container closed when not in use. Store away from acids, organics, oxidizers, metals and incompatible materials, in a cool, well ventilated area. Absorb spills with kitty litter, sand or earth and package in a suitable container for disposal. Do not reuse container.

FIRST AID

For Eye/Skin contact:

Rinse eyes and/or skin with plenty of water for several minutes. Get medical attention if irritation develops and persists.

For Inhalation:

Remove from area to fresh air. If not breathing, give artificial respiration. Get immediate medical attention. If breathing is difficult, give oxygen.

For Ingestion:

DO NOT induce vomiting. Give victim a glass of water. Get immediate medical attention. Do not give anything by mouth to an unconscious or convulsing person.

WARNING: KEEP OUT OF REACH OF CHILDREN

For more information, read the Material Safety Data Sheet which may be obtained from your supplier or on the web at www.sprintsyste.ms.com. Conforms to ASTM D 4236. EMERGENCY Telephone Number: ChemTel 1-800-255-3924, or contact a physician or your local Poison Control Center.

LIMITED WARRANTY

Sprint Systems will not be responsible for any harmful effects caused by swallowing or inhaling the contents of any Sprint chemical, or by contact of Sprint chemicals with skin or eyes. Warranty limited to replacement of Sprint products if defective in manufacture, labeling or packaging.

BLACK & WHITE FILM DEVELOPER

WILL NOT BLOCK UP HIGHLIGHTS WITH OVER DEVELOPMENT REDUCES AGITATION STREAKS
DILUTE 1:9 WATER