PROCEDURES FOR PROCESSING 35mm FILM

Chemicals: Developer (Kodak D-76)
Stop Bath
Fixer
Hypo Clearing Bath (Perma-Wash)
Wetting Agent (Kodak Photo-Flo)

Equipment: Tank and reels
Thermometer
Timer
Bottle Opener and Scissors
Measured Graduate
Funnel
Film Squeegee

In Complete Darkness:

1. Open the cartridge with a bottle opener.
2. Cut off the leader of the film.
3. Load the film on the reel.
4. Place the loaded reel into the tank.
5. Cap the lid on the tank.

Lights On:

1. Pour water into tank for a pre-wet while you are mixing your developer.
2. Dilute stock solution of D-76 (1:1), one part developer to one part water, 8 oz. of D-76 for 2 rolls of 35mm film in a 16 oz. tank.
3. Check the temperature of the developer.
4. Warm/ cool the developer until a range of 65F to 75F is reached. 68F is ideal.
5. Consult film data sheet for developing times.

Tri-X	68F	10 minutes	T-Max 100	68F	12 minutes
Plus-X	68F	7 minutes	T-Max 400	68F	12 ½ minutes
Pan-X	68F	7 minutes			

6. Dump water. Tilt tank and add developer.
7. Agitate tank for the 30 seconds then rap tank once against the sink. Agitate for 10 seconds every minute throughout developing time.
8. <u>DUMP DEVELOPER DOWN DRAIN.</u> Add Stop Bath quickly. Agitate for 1 minute, return to bottle.
9. Water wash for 1 minute.
10. Pour Fixer in. Agitate for first 30 seconds, and for 10 seconds each remaining minute. Total fixing time 5 minutes. Return to bottle.
11. Water wash for 1 minute.
12. Pour Perma-Wash in. 2 minutes. Agitate as before. Return to bottle.
13. Remove tank cover. Final wash for 5 minutes.
14. Photo-Flo, Squeegee, Hang to dry.

FILM PROCESSING

1. Pre-Wet, 1 minute
2. Developer 1:1, consult table for time. Agitation. Dump.
3. Stop Bath, 1 minute, Agitation, Return to bottle.
4. Water rinse, 1 minute.
5. Fixer, 5 minutes, Agitation, Return to bottle.
6. Water rinse, 1 minute. Dump water from tank several times.
7. Perma-Wash, 2 minutes, Agitation, Return to bottle.
8. Final wash with tank lid removed, 5-10 minutes.
9. Photo-Flo, 30 seconds.
10. Squeegee film, hang to dry.

ARE CHEMICALS FRESH?

1. Always use up one gallon of D-76 before starting another. Air inside the bottle will cause the developer to oxidize if it sits around too long.
2. Stop Bath should be yellow. If bad, it will turn purple.
3. Use a drop of “Hypo-check” to test strength of the fix. A milky residue will appear if fix is no good.

4. Perma-Wash should be clear. If it looks pale purple, use a fresh bottle of working solution.

SET-UP FOR PRINTING

Use trays as marked

1. Polymax T-Developer: Use straight from jug about 64 oz.
2. Stop Bath: Use straight from jug. About 64 oz. in tray.
3. Fixer: Use straight out of bottle, about 64 oz. per tray.
4. Final wash for 5 minutes (not much longer). Check to make sure prints are circulating in drum. Squeegee and place in drying rack face up starting from the back and working forwards.

Use trays to carry finished prints and tests out into light.
DON'T DRIP.

Print Processing Times:

Developer:	A minimum of 1 minute with agitation.
Stop:	30 seconds with agitation
Fixer:	5 minutes for RC paper, 10 minutes for Fiber paper.
Permawash:	For Fiber paper only. 5 minutes.
Final Wash:	5 minutes for RC paper. For Fiber paper, after Permawash, water wash for 15 minutes.

TO MIX CHEMISTRY FROM STOCK

Stock solutions are kept in the darkroom on the bookshelf with the working solution bottles.

1. **To make Polymax paper developer**, Packaged in brown cardboard box, to make one gallon. Water temp from tap. Follow mixing ratio listed on box for 1 gallon. Put cap on bottle and shake. Add water to full.

2. **To make D-76 film developer**: Follow directions on the yellow package. Water must be 100 - 120 degrees.

3. **To make Stop Bath**: 4 oz. of stock solution in cube to 1 gallon of water. (Cold Water) Stop for paper and film are the same.

4. **To make Fixer:** 16 oz. out of cube, fill the rest of the gallon with cold water. Fix for paper and film are the same.

5. **To make Perma-wash:** 6 oz. out of stock bottle (bottle with trade label) and fill with cold water to make 1 gallon.

CLEAN-UP

1. Enlarger Area
2. Sink Area
3. Print Drying Area
4. Garbage on Floor
5. Make sure Counter is Dry and Cleared Off. (Both Rooms)
6. Take Empty Trays Back into Darkroom.
7. Mop Spills on Floor.
8. Safelights Off, Doors Locked.

CHEMICALS:
When finished working, dump Polymax in recycle jug. If you are returning, or if another student is coming shortly, you may cover Stop bath and Fix if still fresh with plexiglass sheets. Otherwise dump stop bath down drain and dump fixer into fixer recycle jug.

NEVER LEAVE UNLOCKED DARKROOM UNOCCUPIED.

DRY MOUNTING

1. Turn on press and tacking iron to warm up for approx. 20 minutes. Tack tissue to print. Be careful about temp. Consult directions with dry mount tissue. RC temperatures are on press. Hotter temps. will melt RC papers.

2. Trim print and tissue paper together so they are exactly the same size. Use paper cutter or mat knife and straight edge.

3. Spot prints. Use a clean work area.

4. Position print on mat board. Pulling up 1 corner of print, tack down corner of tissue to board.

5. Place in press face down with a piece of clean board under and above it to protect it from dirt in press.

6. Remove from press. Make sure print is completely mounted.

7. Place hot print under heavy books or other weighty object, for 2 minutes until print cools. Otherwise print will curl.