

Film Processing



Safety

- # Darkness
 - Know where things are when loading film
- # Chemicals
 - Mix carefully
 - Don't splash
 - Add acid to water
 - Wash hands after use



Development

- # Converting the latent image to a visible image
- # Equipment
 - Reel and tank
 - Thermometer
 - Negative sleeves

Processing Steps

- # Practice loading film
 - **Total Darkness**
- # Mix developer
 - 1:2, developer:water
 - Temperature - 68 degrees
 - Time
 - Film mfg.
 - Film ISO

Load Film

- # **Total Darkness**
 - Practice is important

Begin

- # Developer at 68 degrees
- # Timer
- # Pour in developer
- # Tap tank - relieves air bubbles
- # 10-15 sec. Agitation
- # Every 30 sec. - AGITATE
- # Over agitation :(

During Development Stage

- # Mix stop bath
- # Agitate only every 30 Sec. - NOT continuously
- # Pour out developer

Stop Bath

- # Neutralizes developer
- # Acid - neutralizes bases
- # 10-15 sec.
- # Agitate continuously
- # Pour out

Fixer

- # Removes unexposed silver
- # Use straight, DO NOT DILUTE
- # Agitate every 30 sec.
- # 2-3 minutes
- # After 2 min., remove lid and check film
 - Milky - not fixed enough
- # Pour fixer back in jug

Rinse

- # Tank lid off at this time
- # Fill tank with water
- # 1 min.
- # Pour out
- # Keeps fixer out of the next chemical

Hypo Clearing Agent

- # Removes fixer, shorter wash time
- # 1 min.
- # Do not pour out, return to jug

Wash

- # Complete removal of all chemicals
- # Power washer
- # 2-3 min.

Photo-flo

- ‡ Drying agent, reduces surface tension of water allowing faster drying
- ‡ 10-15 sec.
- ‡ Save, pour back in jug

Hang to Dry

- ‡ Minimum of 30 min.
- ‡ Film sleeves
 - Cut film to length, 5-6 frames depending on sleeve size
 - Always keep film in sleeves

Problems

- ‡ Reticulation
 - sudden changes in temperature, orange peel look
- ‡ Clear film, no numbers
 - Film fixed first
- ‡ Clear film, numbers
 - Film did not go through camera

Problems

- ‡ Milky colored film
 - Not fixed long enough, re-fix
- ‡ Film completely black
 - Exposed to light (fogged)
- ‡ Entire roll, including ends is light
 - Developing time too short
 - Developer too cold

Problems

- ‡ Light to dark difference, top to bottom
 - Not enough developer
 - Not agitated

Time, Temperature, Agitation

- ‡ Time
 - Over development - increase in grain & contrast
 - Under development - lack of contrast
- ‡ Temperature
 - Too hot - develops too fast
 - Too cold - develops too slowly
 - Sudden change

Time, Temperature, Agitation

Agitation

- Replaces exhausted developer with fresh developer
- Over agitation, increased grain
- Under agitation, poor quality negatives, low contrast