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TENTATIVE

E-65

IDENTIFYING E-6 PROCESSING ERRORS

When the effects of inadequate storage or improper exposure are eliminated as the causes of poor-quality Ektachrome transparencies, incorrect processing in Process E-6 may be the source of the fault. Errors can occur in chemical mixing, order of solutions in processing, solution temperatures, agitation rates, washing, replenishment rates, and contamination of processing solutions. The table relates abnormal appearance of the processed film to possible causes.

Visual examination of processed films is one method for discovery of processing faults. While such examination may point out the type of processing error, it cannot provide all of the information to correct the deficiency. The extent of deviation from normal and the corrective action required are more readily assessed with the aid of sensitometric control strips which are evaluated on a densitometer or compared with a reference strip. Consult the processing guidelines and process monitoring procedures published as a guide for Process E-6 (Kodak Publication No. Z-119, *Using Process E-6*).

For information on Kodak monitoring system manuals, control strips, and charts, refer to Kodak Publication No. Z-99a, *Index to Process Monitoring Aids.*

VISUAL EXAMINATION OF PROCESSED FILM

Appearance of Film	Probable Fault
Very High Maximum Density (no image apparent)	First developer and color developer reversed. First developer omitted.
Dark Overall	Inadequate time or low temperature in first developer. First developer diluted, exhausted, or underreplenished. Color developer starter added to first developer.
Very Dark (overall or in random areas)	Bleach or fixer (or both) omitted, reversed, diluted, exhausted, or underreplenished.
Light Overall	Excessive time or high temperature in first developer. Film fogged by light prior to processing. First developer too concentrated. First developer overreplenished or starter omitted in preparation of working (tank) solution. First developer contaminated with color developer.
Light Overall, Blue Color Balance	First developer contaminated with fixer

(Over)

(Continued)

Appearance of Film	Probable Fault
Overall Density Variation from Batch to Batch	Inconsistencies in time, temperature, agitation, or replenishment of first developer.
Blue	Reversal bath too concentrated. Color developer alkalinity too low. Excessive color developer starter used in preparing tank solution. Color developer replenisher mixed with Part B only. Process E-4 used in error.
Cyan	First and color developers underreplenished.
Yellow	Color developer alkalinity too high. Color developer starter added to first developer. Color developer replenisher mixed with only Part A.
Low Densities Blue-Green, High Densities Yellow	Color developer contaminated with first developer. Color developer contaminated with fixer.
Blue-Red with High Maximum Density	Color developer replenisher too dilute.
Green	Reversal bath exhausted, diluted, or underreplenished. Film fogged by green safelight. Wash used between reversal bath and color developer.
Very Yellow	Film exposed through base. Film fogged by room lights during first developer step.
Cross-Width Bar Marks (When using stainless steel reels)	Gaseous burst agitation used in first developer.
Scum and Dirt*	Stabilizer requires replacement. (Replace once a week.) Filters in recirculating systems require replacement. (Change once a week.) Air filters in dryer need changing. Dirt in other solutions. Use floating covers on tanks and replenisher solutions whenever possible. Stabilizer too concentrated.

* Foreign particles may be due to buildup of fungus or algae in processing solutions or wash tanks. To minimize this buildup, drain water wash tanks when not in use. When the processing equipment will be out of use for more than 6 weeks, drain and rinse the reversal bath tank and replenisher storage tanks. To remove fungus or algae, scrub the tanks with a stiff bristle brush and a sodium hypochlorite solution (1 part household bleach to 9 parts water). Rinse the tank thoroughly with water to remove the last traces of sodium hypochlorite solution. Use a 50-micrometer (or finer) filter in the water supply.

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