

Filmmaterial

Englisch: Film Stock

KAMERA/TECHNIK

Filmmaterial bezieht sich auf den physischen Kinofilm, der in Kameras verwendet wird, charakterisiert durch Filmformat, Farbe oder Schwarzweiß, Emulsionstyp und Geschwindigkeitsklasse. Verschiedene Bestände bieten unterschiedliche visuelle Eigenschaften und werden nach spezifischen Produktionsanforderungen ausgewählt.

Motion Picture Film Stock Film stock represents the foundation of analog cinematography, comprising the physical film used in cameras. Film stock selection encompasses decisions about gauge, emulsion type, color, speed, and other characteristics that collectively define the visual output of cinematography. Film Stock Categories By Film Type : Color Negative : Negative color film (primary shooting format) Black and White : Monochrome film Reversal : Reversal color film (rare, specialized) Print Film : For final theatrical prints (archival) By Color Sensitivity : Daylight : Optimized for 5500K daylight Tungsten : Optimized for 3200K artificial light Panchromatic : Sensitive to full visible spectrum By Format : 35mm : Standard theatrical cinema 16mm : Educational and lower-budget cinematography 8mm : Archival, specialty, artistic use 65mm/70mm : Large format, specialty Speed and ISO Rating Exposure Index (EI) : Determines light sensitivity Ranges from very slow (50 ISO) to very fast (800+ ISO) Selected based on available lighting Trade-off between speed and grain Common Speed Categories : Very Slow (50 ISO) : Bright daylight, ultra-fine grain Slow (100-200 ISO) : Standard daylight, fine grain Medium (250-400 ISO) : Versatile, balanced Fast (500-800+ ISO) : Low light, visible grain Emulsion Technology Modern Emulsion : Advanced grain structure Color rendering optimization Digital-era design (scanning-friendly) Consistent performance across batches Emulsion Science : Silver halide crystals in gelatin base Color layer structure (Cyan, Magenta, Yellow) Advanced filtration and chemistry Decades of research and development Color Characteristics Warm Palette Films (Kodak): Pleasing skin tones Magenta/warm bias Shadow character Industry standard aesthetic Cool Palette Films (Fujifilm): Objective color rendition Cyan/cool bias Clinical precision Alternative aesthetic Grain and Resolution Film Grain Properties : Visible grain at 35mm magnification Grain finer in slower stocks Digital scanning preserves grain detail Grain considered aesthetic element in modern cinema Resolution Potential : 35mm film: Approximately 4K+ equivalent detail Grain structure limits practical resolution Digital scanning captures available information Grain distribution affects perceived detail Film Stock Manufacturers Current Producers : Kodak : Dominant manufacturer (Vision3 series) Fujifilm : Secondary manufacturer (Eterna series) ORWO : Limited archival stocks Others : Minimal presence Historical Manufacturers : Agfa (discontinued motion picture film) Ektachrome (revived limited production) Ektachrome (discontinued in 2012, recently revived) Ilford (discontinued motion picture stocks) Selection Criteria Speed Selection : Available lighting determines minimum speed Finer grain available at slower speeds Shutter angle control influences speed needs Motion blur preference affects selection Color Temperature Selection : Daylight stocks (5500K) for outdoor cinematography Tungsten stocks (3200K) for artificial lighting Conversion filters enable mixing Creative color choice possible Grain Acceptance : Slow stocks (fine grain): Bright lighting required Medium stocks: Balanced

speed/grain trade-off Fast stocks (visible grain): Low light or artistic choice Modern acceptance of film grain aesthetic Production Workflow Stock Selection Process : Analyze Lighting : Determine available light levels Determine Speed : Calculate minimum required ISO Compare Options : Consider grain, color, cost Select Stock : Finalize choice based on criteria Verify Availability : Ensure supply for production Multi-Stock Workflows : Daylight scenes: Faster daylight stock Night scenes: Very fast tungsten stock Interior studio: Tungsten-balanced stock Post-production: Manages color consistency Processing and Development ECN-2 Chemistry : Standard motion picture processing Consistent across manufacturers Precise temperature control required Professional laboratory standard Processing Variables : Push/Pull processing: Speed rating adjustments Chemistry timing: Critical for color accuracy Sensitometry: QC verification of proper processing Archive standards: Preservation protocols Film-to-Digital Workflow Digitization : Scanning to digital intermediate (DCI) Color space conversion (Rec.709, DCI-P3, Rec.2020) Grain preservation or removal options Digital mastering and grading Digital Grading : LUT application for creative color work Grain characteristic preserved in scan Full editing and effects flexibility Final delivery in multiple formats Film Stock Characteristics Summary Stock Type Speed Grain Best For Color 50D 50 Finest Bright daylight Warm 250D 250 Fine Standard day Warm 200T 200 Fine Studio tungsten Warm 500T 500 Visible Low light/night Warm Eterna 250D 250 Fine Daylight alt Cool Economics Film Stock Costs : Material Cost : ~\$100-150 per 1000ft roll Processing : ~\$0.10-0.15 per foot Scanning : \$50-150 per reel depending on service Total Material : Significant percentage of budget Budget Considerations : Film cost substantial for extended shoots Many productions hybrid film/digital Digital for flexible acquisition, film for aesthetic Budget allocation between format options Storage Requirements Film Preservation : Temperature : Cool storage (below 55°F ideal) Humidity : Dry environment (40-50%) Light Protection : Sealed cans essential Shelf Life : Months to years before exposure Processed Film : Archive conditions for preservation Future of Film Stock Current Trajectory : Limited production capacity Growing demand despite price Digital cinematography dominance Film as specialty aesthetic choice Long-term Outlook : Kodak likely to continue production Fujifilm maintains niche supply Film cost increases as production scales Specialty medium for specific aesthetic goals Film stock remains essential for cinematographers prioritizing film aesthetic and optical characteristics over digital acquisition.