

KODAK FILM HISTORY

Chronology of Motion Picture Films - 1889 to 1939

1889 - The first commercial transparent roll film, perfected by Eastman and his research chemist, was put on the market. The availability of this flexible film made possible the development of Thomas Edison's motion picture camera in 1891. A new corporation - The Eastman Company - was formed, taking over the assets of the Eastman Dry Plate and Film Company.

1909 - First public announcement of Eastman Safety Acetate Support based on successful burning test results vs. Nitrate Support.

1910 - First Safety Film (acetate) offered for sale in 22mm.

1912

Eastman provides Cellulose Acetate Base film to Thomas A. Edison, Inc., Orange, NJ for use in Home Kinescopes

Kodak Supplied 22mm wide film containing 3 linear rows of pictures with perforations between the rows.

1916 - Cine Negative Film, Type E - Orthochromatic

1917 - Cine Negative Film, Type F - Orthochromatic

1921 - Cine-Positive tinted stocks available in: lavender, red, green, blue, pink, light amber, yellow, orange and dark amber.

- Super Speed Cine Negative Film - Orthochromatic

1922 - Kodak Panchromatic Cine Film

1923

Manufacture of matrix stock for (2 color) Technicolor process as well as print stock (Kalmus Positive)

Kodak made amateur motion pictures practical with the introduction of 16 mm reversal film on cellulose acetate (safety) base, the first 16 mm CINE-KODAK Motion Picture Camera, and the KODASCOPE Projector. The immediate popularity of 16 mm movies resulted in a network of Kodak processing laboratories throughout the world.

1926 - Motion Picture Duplicating Film for duplicate negatives

1928

Type II and Type III Cine Negative Panchromatic Films

Kodacolor, a lenticular additive color film introduced for 16mm movies. Motion pictures in color became a reality for amateur cinematographers with the introduction of 16 mm KODACOLOR Film.

1929 - The company introduced its first motion picture film designed especially for making the then-new sound motion pictures.



In 1912 George Eastman was one of the first American industrialists to organize a research laboratory. This picture was taken at Kodak Research Laboratories in Rochester, New York, in 1920.

1930 - 1931

- Super Sensitive Cine Negative Panchromatic Film --Awarded OSCAR-- (4th Academy Year) Class I. Scientific or Technical Award (joint with DuPont Film Mfg. Corp.)
- Orthochromatic Negative Film discontinued
- Experimental Kodachrome color motion picture film (2 color) tried by Fox Film Co.



1932

- First 3-color Technicolor film stocks introduced.
- Awarded OSCAR -- (5th Academy Year) Class III. Scientific or Technical Award for the Type 2-B Sensitometer
- The first 8 mm amateur motion-picture film, cameras, and projectors were introduced.

1935

- Awarded OSCAR -- (8th Academy Year) Class II. Scientific or Technical Award for the development of the Eastman Pola-Screen
- KODACHROME Film was introduced and became the first commercially successful amateur color film initially in 16 mm for motion pictures. Then 35 mm slides and 8 mm home movies followed in 1936.

1936

- A new home movie camera was announced which used film in magazines instead of rolls - the 16 mm Magazine CINE-KODAK Camera. A year later, Kodak introduced its first 16 mm sound-on-film projector, the Sound KODASCOPE Special Projector.

1937

- EASTMAN Fine Grain Duplicating Film 1365 (Nitrate Base). For making master positives. Awarded OSCAR -- (10th Academy Year) Class II. Scientific or Technical Award.
- EASTMAN Fine Grain Panchromatic Duplicating Film, 1203 (Nitrate Base). For duplicate negatives. Awarded OSCAR -- (10th Academy Year) Class II. Scientific or Technical Award.

1938



Over a hundred years ago, George Eastman used this long table to manufacture rolls of flexible film in 200-foot lengths. Thomas Edison was one of the first customers. Edison needed the film to complete his

- KODACHROME Duplicating film, 5262 (16mm). Also used as a camera film. Replaced by 5265 in 1940. invention of a motion picture camera and projector.
- EASTMAN Fine Grain Sound Recording Film, 1360 (Nitrate Base). For variable area sound recording.
- EASTMAN Plus X Film 1231 (Nitrate Base). Replaced EASTMAN Super X Film, 1227 (Nitrate Base).

1939

- EASTMAN Fine Grain Sound Recording Film, 1366 (Nitrate Base). For variable density sound recording.
- OSCAR Awarded to Emery Huse and Ralph B. Atkinson of Kodak -- (12th Academy Year) Class III. for their specifications for chemical analysis of photographic developers and fixing baths.

Chronology of MP Films - 1960 to 1979

1960

- EASTMAN Fine Grain Release Positive film, 7303. 16mm only. Better image structure than 7302. Discontinued 1962.
- EKTACHROME Reversal Print film, 7386. Process ME-2A. Printing from 7257 & 7258. Discontinued 1972.

1962

- EASTMAN Color Print film, 7/5385. Replaced 7383 and 5382. Improved definition and speed. Discontinued in 1972.
- EASTMAN Reversal B & W Print film, 7361. Print stock for black and white reversal camera films. Ortho-sensitive.
- EASTMAN Color Negative film, 5251. Tungsten, EI 50. Image structure improvement over 5250 (EI 50). Replaced by 5254 in 1968.

1963

- EASTMAN RP Negative film, 7229. Daylight, EI 250. Tungsten, EI 200. 16mm black and white negative film for VISCOMAT processing. Discontinued in 1970.
- EKTACHROME MS film, 7/5256. Daylight, EI 64. Process ME-2A or ME-4. Discontinued January, 1984.

1964

- EASTMAN XT-Pan Negative film, 5220 Daylight, EI 25. Tungsten, EI 20. Ultra sharp and fine grain. For background projection. Replaced Background X film, 5230. Discontinued 1970.
- EASTMAN 4-X Negative Pan film, 7/5224 Daylight, EI 500. Tungsten, EI 400. High speed camera negative film. Discontinued 1990 (G).



- EASTMAN Reversal Print film, 7387 (KODACHROME). Non-incorporated coupler color duplicating film. Replaced 5269. Process RCP-1. Discontinued August, 1981.

1965

- Super 8 film format - silent - Commercial availability, May, 1965
- Kodak developed the super 8 format and launched super 8 movies with new cartridge-loading KODACHROME II Film.

1966

- EASTMAN Fine Grain Duplicating Positive film, 7/5366. For master positives from black and white negatives. Blue sensitive. Toe shape improvement. Replaced 5365.
- KODAK EKTACHROME EF film, 7242. Tungsten, EI 125. Process ME-4. Replaced 7258. Discontinued 1986.
- KODAK EKTACHROME EF film, 7241. Daylight, EI 160. Process ME-4. Replaced 7257. Discontinued 1984.
- EASTMAN Reversal Print film, 7387. Improved. Non-incorporated couplers. Process ECP-2. ([See 1956](#)) Discontinued August, 1981.
- EASTMAN EKTACHROME R Print film, 7388. For prints from projection contrast reversal originals. Process ME-4. Replaced by 7389 in 1970.

1967

- KODAK 4-X Reversal film, 7277. Daylight, EI 400. Tungsten, EI 320.
- EASTMAN Color Print film, 7380. For super-8 end use. Discontinued June, 1971. Replaced by 7381 in 1970.
- EASTMAN Color Print Film, 5744. Low Contrast film for television production.

1968

- EASTMAN Color Internegative film, 7271. Replaced 7270. Process ECP, shortened. Image Structure. Discontinued January, 1982.
- EASTMAN Direct MP film, 7/5360. Ortho sensitive. For direct reversal duplicating in a one developer process. OSCAR Awarded -- (41st Academy Year) Class I. Scientific or Technical Award. Also awarded to Consolidated Film Industries for the application of the film to the making of post-production work prints.
- EASTMAN Color Negative film, 7/5254. Tungsten, EI 100. Replaced 5251 (EI 50). Image structure equal to 5251. Discontinued March, 1977 (E). OSCAR Awarded -- (41st Academy Year) Class I. Scientific or Technical Award.
- EASTMAN Color Reversal Intermediate film, 7/5249. For a one step color duplicate of the original. Process CRI-1. -- Awarded OSCAR -- (41st Academy Year) Class I. Scientific or Technical Award.
- Discontinuance of 5305.
- OSCAR Awarded -- (41st Academy Year) Class II. Scientific or Technical Award for the development of a new high-speed step-optical reduction printer (joint award with Producers Service Co.)
- EMMY Awarded (Academy of Television Arts & Sciences) -- ME-4 Process for developing color film with greater speed and sharper images.

1969

- Kodak received an "Emmy" Award for its development of fast color film processing for television use.

1970

- EASTMAN EKTACHROME Commercial film, 7252. Tungsten, EI 25. Process ECO-3. Replaced 7255. Sharper than 7255. Forcible to EI-50. Paper given April 1969 SMPTE, Hollywood, CA.
- EASTMAN Color Print film, 7381 (super 8 only). 0.45 log E faster than 7380, which it replaced. Also see 1971 & 1972.
- EASTMAN EKTACHROME R Print film, 7389. Silver sound trackcapable. Replaced 7388. Paper given April 1969 SMPTE, Hollywood, CA.
- Discontinued 7229 and 5220.
- OSCAR Awarded -- (43rd Academy Year) Class III. Scientific or Technical Award for the design and engineering of an improved video color analyzer for motion picture laboratories (joint award with Photo Electronics Corp.)



1971

- EASTMAN Color Print film, 7381. Replaced 7385 for 16mm end use. Discontinued January, 1982. Also see 1970 & 1972.
- Kodak introduced "movies by the light you live in" with KODAK EKTACHROME 160 Movie Film (Type A) and two new super 8 movie cameras which, in combination, made possible "existing light" movies for home use.

1972

- EASTMAN Color Print film, 5381. Replaced 5385 for 35mm end use. At this point there was only one common color print film for all formats, for the first time. Discontinued January, 1982. Also see 1970 & 1971.

1973

- EASTMAN EKTACHROME Reversal Print film, 7390 (SO-390). High contrast print film for duplicating low contrast camera film 7252. Replaced 7386. Paper given 1971 SMPTE, Montreal.
- EASTMAN High Contrast Panchromatic film, 5369. For travelling matte opticals. 35mm only.
- Super 8 film format - magnetic sound - Commercial availability, August, 1973
- OSCAR Awarded -- (46th Academy Year) Class II. Scientific or Technical Award for the development of a liquid-gate system for motion picture printers (joint award with PSC Technology, Inc. and The Rickmark Camera Service Inc.)
- Motion Picture and Educational Markets Division renamed Motion Picture and Audio Visual Markets Division.

1974

- EASTMAN Color Negative II film, 5247. Tungsten, EI 100, Daylight 64. Sharper/finer grain than 5254 (EI 100) (E). Process ECN-2 (new process). EDTA bleach. Paper given 1972 SMPTE.
- 5254 RETURNED TO PRODUCTION UNTIL 1976.
- EASTMAN Color SP Print film, 7/5383. For higher temperature Process ECP-2. For greater release printing efficiency in larger labs. Quality similar to 7/5381 with which it will co-exist. Discontinued 1983.

1975

- KODAK EKTACHROME SM film, 7244. Super 8 color reversal film for automated processing in Spermatic Processor. Process ES-8. Announced 1973.

- EASTMAN Ektachrome Video News Film 7240. Process VNF-1 (eliminate prehardener and neutralizer from Process ME-4). Tungsten EI-125 Quality and performance comparable to 7242, with which it will co-exist.

1976

- EASTMAN Color Negative II film, 7/5247. Tungsten, EI 100 H. Process ECN-2. Modified. Extended latitude and improved flesh tone. First introduced in 1974. EDTA bleach. Discontinued March, 1983.
- EASTMAN EKTACHROME Video News film, 7239. Daylight, EI 160. Process VNF-1. Replaced 7241.
- EASTMAN EKTACHROME Video News film, 7240. Tungsten, EI 125. Process VNF-1. Replaced 7242. EMMY Awarded (Academy of Television Arts & Sciences)
- EASTMAN Color Intermediate II Film 5243 -- OSCAR Awarded -- (50th Academy Year) Class II. Scientific or Technical Award. Replaces 5253. Process ECN-2. Paper given at 1976 SMPTE.

1977

- EASTMAN EKTACHROME High Speed Video News film, 7250. Tungsten, EI 400. Process VNF-1.
- EASTMAN EKTACHROME VN Print film, 7399. Process VNF-1. Replaced 7389.
- EASTMAN Color SP Low Contrast (minus 25%). Print film, 7/5738. Process ECP-2.

1978

- OSCAR Academy Award of Merit -- (51st Academy Year) for the research and development of duplicating color film for motion pictures 5243 film (accepted by K. M. Mason).

1979

- EASTMAN Color LF Print film, 7378. Improved cyan dye post processing keeping. Process ECP. Markedly improved cyan dye dark-keeping stability. Discontinued January, 1982.
- EASTMAN Color LFSP film, 7379. Same as 7378 except for Process ECP-2. Markedly improved cyan dye dark-keeping stability. Discontinued 1983.

Chronology of MP Films - 1980 on

1980

- EASTMAN Color Internegative II film, 7/5272 S. Process ECN-2, normal. Replaced 7/5271.
- EASTMAN Color Negative II film, 7/5247 F. Ferri bleach version (SR-29).
- EASTMAN Sound Recording film, 7/5373. Replaced 7/5375 Paper given at SMPTE 1979.

1981

- EASTMAN EKTACHROME High Speed Daylight film, 7251. Daylight, EI 400. Process VNF-1 or RVNP. High speed 16mm camera film. Compatible with Process VNF-1 and RVNP.

1982

- EASTMAN Color Print film, 7/5384 Improved cyan dye dark keeping and red sensitivity to process variations. Process ECP-2A. Replaced 7/5381, 7/5383, 7378, 7379. In SMPTE Journal December 1982 and BKSTS Journal August 1983.
- EASTMAN Color High Speed Negative film, 7/5293. Tungsten, EI 250 ECH. Process ECN-2. Discontinued Spring 1983. EMMY Awarded (Academy of Television Arts & Sciences). Paper published in SMPTE Journal October 1982. Was given Journal Award for best technical film paper in 1982.
- Datacode Magnetic Control Surface

1983

- EASTMAN Color Negative film, 7291. Tungsten, EI 100. Improved image structure and color reproduction in a 16mm film. Replaced 7247. Published in SMPTE Journal December 1983.
- EASTMAN Color High Speed Negative film, 7/5294. Tungsten, EI 400 35mm; EI 320 16mm. Increased film speed and improved image structure. Replaced 7/5293. EMMY Awarded (Academy of Television Arts & Sciences)
- EASTMAN Color LC Print film, 7/5380. Low contrast (minus 15%) for video transfers. Optimum reproduction of film over television. Replaced 7/5738.
- National Association of Television Program Executives: (Salutation) "Congratulations to Eastman Kodak Company on it's 100th birthday with gratitude for it's enormous and vital contributions to the growth and the beauty of the television medium."

1984

- Discontinued - EASTMAN EKTACHROME EF films, 7/5241, 7/5242 and EASTMAN EKTACHROME MS film 7/5256. All required Process ME-4. These products had been replaced with products requiring Process VNF-1 / RVNP.

1985

- Discontinued - EASTMAN EKTACHROME Commercial film, 7252 and EASTMAN EKTACHROME Print film, 7/5389 and Processes ECO-3 and ME-4 (R).

1986

- EASTMAN Color High Speed Negative film, 7292. Tungsten, EI 320. Replaced 7294. First motion picture film to have "T" Grain. T-Grain is in the fast magenta and slow blue (N). Discontinued 1992.
- EASTMAN Color High Speed SA Negative film, 5295 Tungsten, EI 400. Greater blue/green separation and tighter tolerance perforations. Especially for blue screen applications. -- Awarded TECHNICAL EMMY 1988.(F)
- EASTMAN Color High Speed Daylight Negative film, 7/5297. Daylight, EI 250. -- Awarded TECHNICAL EMMY 1988. Discontinued 1997.
- EASTMAN Color Intermediate film, 7/5243, IMPROVED. Reduced grain and increased blue speed. T-Grain in the blue.(A)
- Discontinued EASTMAN EKTACHROME Reversal Print film. 7390.

1988

- Reduced processing fog sensitivity of EASTMAN Fine Grain Release Positive film, 7/5302;
- EASTMAN Sound Recording film, 7/5373;
- EASTMAN High Contrast Print film, 7/5362.
- EASTMAN Color Print film, 7/5384. Modified to Eliminate need of formalin in stabilizer. Process ECP-2B.
- Awarded Scientific and Technical Award from the Academy of



Motion Picture Arts and Sciences for the development of EASTMAN Color High Speed SA Negative Film 5295 for blue screen travelling matte photography.

- Awarded Scientific and Technical Award from the Academy of Motion Picture Arts and Sciences for the development of EASTMAN Color High Speed Daylight Negative Films 5297/7297

1989

- EASTMAN EXR 50D Color Negative film, 5245/7245. Daylight EI 50. Extremely fine grain. T-Grain in all layers.(K)
- EASTMAN EXR 100T Color Negative film, 7248 16mm. SO 387 35mm. Tungsten, EI 100. Replaced 7291, 16mm. Improved grain and sharpness. T-Grain in all layers.
- EASTMAN EXR 500T Color Negative film, 5296. Tungsten, EI 500. Blue and green separation similar to 5295. All T-Grain except in fast yellow (J) Discontinued 1995.
- STRENGTHENED CORNERS. All 35 mm EASTMAN camera negative films with Bell and Howell (negative) perforations are produced with stronger (radius increased by 0.005 inches) corners. This will decrease the propensity for the perforations to fracture, and lengthen the use of products where perforation stress is a factor.
- TIGHTER TOLERANCE 16 MM. All 16 mm camera films have a reduced tighter tolerance. This refers to perforation height and width dimension and not pitch.
- *100 Years of Service to the Motion Picture Industry -- Awarded OSCAR*
- Kodak celebrated the 100th anniversary of motion pictures by introducing Eastman EXR color negative films.

1990

- Discontinued. EASTMAN 4 X Negative Film, 5/7224. EASTMAN 4 X Reversal Film, 7277.
- EASTMAN EXR 100T Color Negative Film, 5248, 35 mm. Tungsten EI 100. Introduced in 1989 (M).
- EASTMAN EXR 500T Color Negative Film, 7296. Cut from 5296 (J).
- Cinema Digital Sound co-developed by Kodak and Optical Radiation Corporation
- EASTMAN Digital Sound Recording Film 2374 (R).

1991

- *T-Grain & EXR Film Family of Products -- Awarded OSCAR*
- Motion Picture and Audio Visual Markets Division renamed Motion Picture and Television Imaging Division.

1992

- EASTMAN EXR Intermediate Film, 5/7244. Finer grain and sharper than EASTMAN Intermediate Film, Replaced 5/7243. -- Awarded OSCAR in 1994(V).
- EASTMAN EXR 200T Color Negative Film, 5293/7293. EI 200 Tungsten. Characteristics similar to the other camera negative films with an EXR designation. Grain structure similar to 5248 (L). Discontinued 2004
- EXPERIMENTAL EASTMAN Separation Film - (5238) SO-340 Acetate - SO-038 Estar. Sold as companion to 5235.

1993

- EASTMAN EXR Color Print Film 5/7386, Replaced 5/7384
- EASTMAN Color LC Print Film 5/7385, Replaced 5/7380
- Using Kodak's new CINEON technology, Kodak technicians digitally restored Walt Disney's 1937 classic "Snow White".

1994



- EASTMAN EXR 500T 5298/7298 (T). Discontinued 2003.
- EASTMAN EXR 200T 5287/7287 Ultra Latitude (W). Discontinued 1996.
- Awarded OSCAR for EASTMAN EXR Intermediate Film 5244

1995

- EASTMAN EXR Primetime 640T Teleproduction Film 5600(P).
- EASTMAN Sound Recording Film 5378 / 7378 / 2378/E / 3378/E. This film replaced EASTMAN Sound Recording II Film 5373/7373
- www.kodak.com/go/motion goes "live" on September 25.

1996

- Motion Picture and Television Imaging renamed Professional Motion Imaging.
- KODAK VISION 320T EASTMAN Color Negative Film 5277/7277 (Q).
- KODAK VISION 500T EASTMAN Color Negative Film 5279/7279 (U).



1997

- KODAK PRIMETIME 640T Teleproduction Film 5620 (Y).
- KODAK VISION 200T Color Negative Film 5274/7274 (Z).
- KODAK VISION 250D Color Negative Film 5246/7246 (I).

1998

- KODAK SFX 200T (X). Discontinued 2004.
- KODAK PreView System
- KODAK VISION 800T Color Negative Film 5289 (R). Discontinued 2004.
- KODAK VISION Premier Color Print Film 2393
- KODAK VISION Color Print Film 2383
- Discontinuance of 5235 EASTMAN Panchromatic Separation Film

1999

- KODAK VISION 800T Color Negative Film 7289 (R. Discontinued 2004.)
- Kodak Kit Chemicals
- KODAK Panchromatic Separation Film 2238 - Replacement for 5235
- KODAK EKTACHROME 100D 35mm Color Reversal Film 5285

2001

- KODAK VISION Expression 500T Color Negative Film 5284 (EG)
- KODAK VISION Color Intermediate Film 5242 / 2242 - Replacement for 5244 / 2244

2002

- KODAK VISION 500T Color Negative Film 5263 / 7263 (EE). Discontinued 2003.
- OSCAR Awarded - Scientific and Engineering Award for the development of Kodak Panchromatic Sound Recording Film 2374

- KODAK VISION2 500T Color Negative Film 5218/7218 (EH), is the first product available in the VISION2 product family and features revolutionary low grain, providing superior image quality in all formats, with cleaner telecine transfer.

2003

- Awarded Scientific and Technical Award from the Academy of Motion Picture Arts and Sciences to four Kodak Research Scientists for the design and development of the KODAK VISION Premier Color Print Film 2393
- KODAK VISION 5263/7263 (EE) Discontinued 2003
- EASTMAN EXR 500T 5298 (T) Discontinued 2003
- KODAK VISION2 Expression 500T Color Negative Film 5229 / 7229 (EB) low contrast, low color film with soft smooth flesh tones

2004

- Awarded Scientific and Technical Award from the Academy of Motion Picture Arts and Sciences for the development of antistatic layer technology
- KODAK VISION2 100T Color Negative Film 5212 / 7212 (EM)
- KODAK VISION2 200T Color Negative Film 5217 / 7217 (EL)
- KODAK EKTACHROME 100D Color Reversal Film available in 16 mm format.
- KODAK VISION2 7217 and KODAK VISION2 7218, available in Super 8 mm format

2005

- KODAK VISION 250D Color Negative Film 5246 / 7246 (I) Discontinued
- KODAK VISION 500T Color Negative Film 7279 (U) Discontinued
- KODAK VISION 200T Color Negative Film 7274 (Z) Discontinued
- KODAK VISION 500T Color Negative Film 7279 (U) Discontinued
- KODACHROME 40 Movie Film (Type A) Super 8 mm Discontinued
- KODAK VISION 320T Color Negative Film 5277 / 7277 (Q) Discontinued
- KODAK EKTACHROME 64T Color Reversal Film 7280 Super 8 mm
- KODAK VISION2 50D Color negative Film 5201 / 7201 (EK)