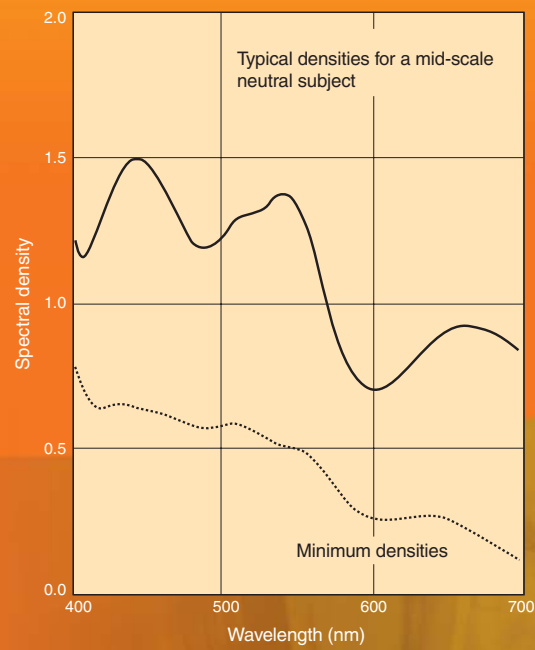
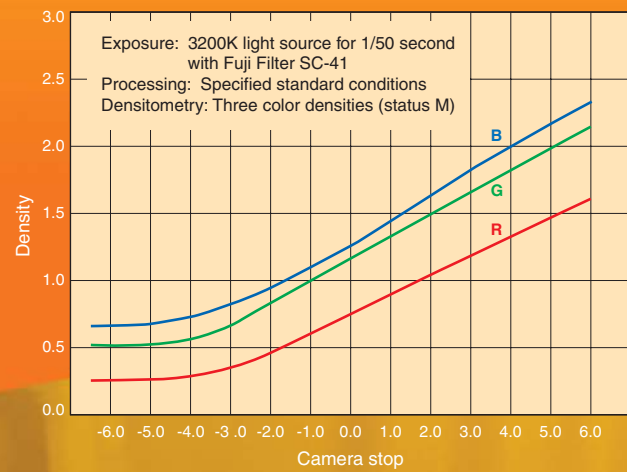


## Spectral density curves

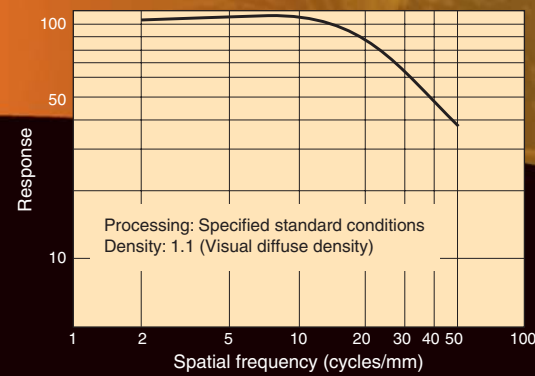


## Characteristic curves

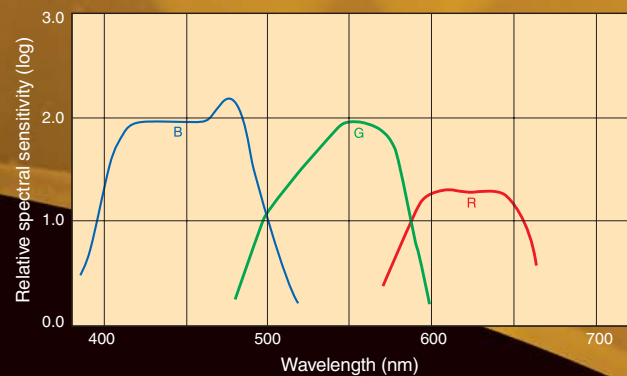


In order to simulate conditions closest to practical use, exposure was made under a 3200K tungsten light source, through a Fuji SC-41 ultraviolet absorbing filter. Processing was carried out under standard conditions and the three color densities were measured, producing the results indicated in the graph above.

## Contrast transfer function\*



## Spectral sensitivity curves



Processing: Specified standard conditions

Densitometry: Arbitrary three color densities

Density: 0.40 above minimum density

Sensitivity: Reciprocal of exposure (ergs/cm<sup>2</sup>) required to produce specified density

\* Spatial frequency attenuation characteristic of amplitude relative to rectangular wave chart. (Data is normalized for amplitude of zero frequency.)

## RMS granularity

3.5 (1,000 times the data obtained from measurement taken at a visual diffuse density of 1.0 above minimum density, using a 48μm diameter aperture)



FUJICOLOR NEGATIVE FILM

ETERNA

35mm Type 8543/16mm Type 8643

Vivid 160

## [ Performance Features of ETERNA Vivid 160 ]

### High color saturation

An evolved version of ETERNA series' Super Efficient DIR-Coupler Technology promotes adhesion and separation of colors, creating a rich, translucent palette.

### Excellent performance in daylight (E.I. 100)

In addition to indoor sets under lights, ETERNA Vivid 160 also delivers exceptional performance in outdoor daylight.\*

\*When used with Fuji Filter LBA-12 or Kodak Filter No.85

### High contrast

The highest contrast in the ETERNA series of motion picture color negative films combines with a highly saturated palette to produce rich, vivid color and crisp, deep blacks.

### Exceptional image sharpness

Proprietary technologies developed for the ETERNA series of motion picture color negative films have been optimized to achieve exceptional sharpness. High contrast and highly saturated color combine to boost image sharpness\*, creating motion picture images with exceptional depth and dimension.

\*Perceived image sharpness

### Enhanced telecine characteristics

Excellent linear response and color balance facilitate color adjustment during telecine transfer. Optimized orange mask density and sharpness balance result in improved scanning characteristics. In addition to exceptional sharpness, these improvements also minimize noise during film scanning.

### Optimized gradation balance

ETERNA Vivid 160 produces balanced, attractive skin tones and grays across a wide range of exposure conditions.

*A dramatic new palette for motion pictures or TV. ETERNA Vivid 160 delivers intense, translucent image quality in the studio or on location.*

Introducing ETERNA Vivid 160, a new concept in motion picture color negative film from the acclaimed Fujicolor ETERNA series. Characterized by intense color, high contrast, and exceptional sharpness made possible by optimized versions of Fujifilm's proprietary motion picture film technologies, this new E.I. 160 color negative film is designed for studio work but easily adapts to daylight location use at E.I. 100.\* Exceptional sharpness and image quality make this distinctive stock an excellent choice for telecine transfer and productions incorporating sophisticated digital effects. ETERNA Vivid 160 brings a dramatic new palette to motion picture production.

\*With Fuji Filter LBA-12 or Kodak Filter No.85

FUJICOLOR NEGATIVE FILM

ETERNA

35mm Type 8543/16mm Type 8643

Vivid 160



## [ Three Technologies Achieve Dramatic Image Quality ]

### Super Nano-structured $\Sigma$ Grain Technology

Fujifilm has developed a technology that precisely controls the light-sensitive structure of the silver-halide grain to nanoscale, resulting in extremely fine grain. Photons generated by exposure to light are concentrated in the photosensitive nucleus via electron accumulators. The grain is designed with a precise electron accumulator structure that efficiently concentrates photons to form the latent image. The grain configuration is precisely engineered to a thickness that minimizes reflections, effectively limiting light scatter and boosting sharpness.

### Super-Efficient DIR-Coupler Technology

Existing DIR Couplers, which control the image formation process by releasing development inhibitors during development, produce improved definition and color reproduction. Now, a DIR coupler has been developed to work effectively with the Super Nano-structured  $\Sigma$  Grain, resulting in further enhancements in color and sharpness.

### Super-Efficient Coupler Technology

A yellow coupler has been developed for enhanced color formation effect during processing. This highly efficient color formation makes it possible to create a thinner layer of emulsion, minimizing dispersion of light and creating crisp, clear images with little distortion.

### Exposure index

Tungsten light (3200K) . . . 160  
Daylight . . . 100 (with Fuji Filter LBA-12 or Kodak Daylight Filter No.85)  
Numbers are for use with exposure meters marked for ISO/ASA speeds. Please note, however, that recommended exposure indexes may not apply due to differences in exposure meters, how they are used, and processing conditions. For best results, test exposures should be made based on instructions for the exposure meter to be used.

### Color balance

ETERNA Vivid 160 is color balanced for tungsten light (3200K), and requires no filters for use in these conditions. When shooting outdoors in daylight or under other light sources, the following conversion filters and exposure adjustments should be made.

Light source	Filter	Exposure index
Tungsten light (3200K)	None	160
Daylight (sunlight + skylight)	Fuji Filter LBA-12 or Kodak Filter No.85	100
Metal halide lamps (e.g. HMI)	Fuji Filter LBA-12 or Kodak Filter No.85	100
Ordinary fluorescent lamps (White light type)	Fuji Filter CC-30R or Kodak Filter CC30R	80
(Daylight type)	Fuji Filter LBA-12 or Kodak Filter No.85	100
Three-band fluorescent lamps (White daylight type (5000K))	Fuji Filter CC-30R or Kodak Filter CC30R	80
(Daylight type (6700K))	Fuji Filter CC-40R or Kodak Filter CC40R	64

These filter recommendations will provide approximate color temperature conversion. Final color correction should be done when printing.

### Reciprocity characteristics

ETERNA Vivid 160 requires no filter corrections or exposure adjustments for shutter speeds of 1/1000 to 1/10 second. For exposures of 1 second, open the lens 1/3 of a stop.

### Film base

Film is coated on a triacetate safety base. The film base has been tinted light cyan, to prevent fogging of ends that can occur when loading spools of film into the camera in light.

### Safelight

This film should be handled in total darkness.

### Processing

ETERNA Vivid 160 can be processed with Process ECN-2 and formulas published by Eastman Kodak for Eastman Color Negative Film. In the bleaching step, persulfate bleach, ferricyanide bleach or PDTA-ferric bleach (UL bleach) can be used.

### Edge markings

The MR code system [edge number, film identification mark (FN43), and machine-readable bar code for each, film name (FUJI 160), emulsion number, roll number, frame marks (4 perforations apart for 35mm film; no frame marks for 16mm film)] is printed as latent images.

### Packaging units and perforations

Film Width	Film Length and Winding Type	Core/Spool	Shape, Pitch, and Specification of Perforations
35mm	30.5m*	30.5m spool	N-4, 740mm (Negative perforations with short pitch) [ISO 491:1988]
	61m	35 x 50mm core	
	122m	35 x 50mm core	
	305m	35 x 30mm core	
16mm	30.5m (Single-perforated, type B winding)	30.5m spool	1R-7, 605mm (Single perforations with short pitch) 2R-7, 605mm (Double perforations with short pitch) [ISO 69:1972]
	30.5m (Double-perforated)	30.5m spool	
	61m (Single-perforated, type B winding)	61m spool	
	61m (Double-perforated)	61m spool	
	122m (Double-perforated)	122m spool	
	122m (Single-perforated, type B winding)	16 x 50mm core	
122m (Double-perforated)	16 x 50mm spool		

Items marked with an asterisk are available on a special order basis

### Handling of exposed film

Exposed film should be processed as soon as possible. If exposed film cannot be processed within one week of exposure, it should be stored at temperatures below 10°C (50°F) and processed as soon as possible.