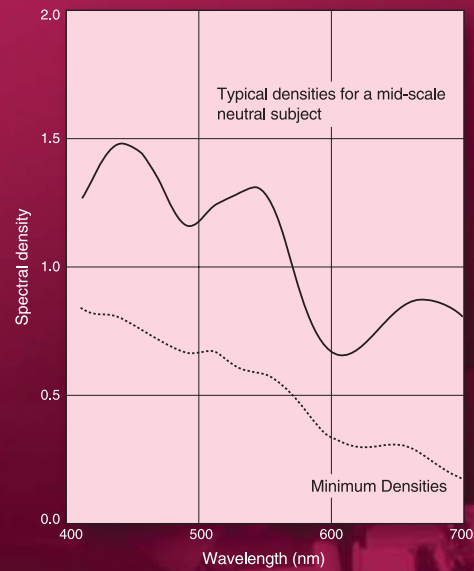
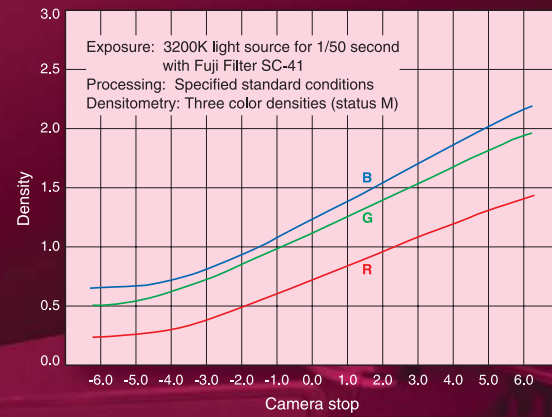


## Spectral density curves

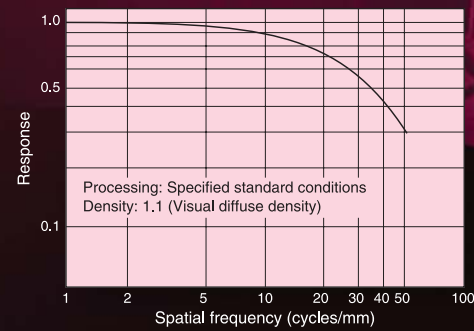


## Characteristic curves

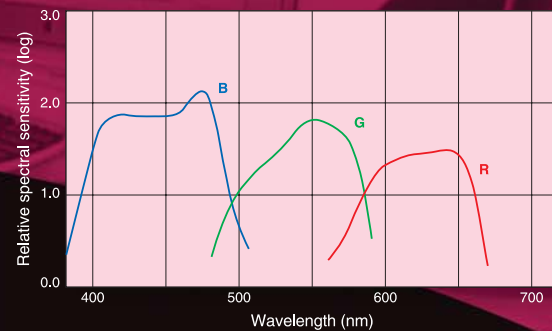


In order to simulate conditions closest to practical use, exposure was made under a 3200K tungsten light source, through a Fuji SC-41 ultraviolet absorbing filter. Processing was carried out under standard conditions and the three color densities were measured, producing the results indicated in the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

3.7 (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

## 400

35mm Type 8583 / 16mm Type 8683

## [ Outstanding Features of ETERNA 400 ]

### Enhanced shadow detail

Fujifilm's proprietary Super Nano-structured  $\Sigma$  Grain Technology gives ETERNA 400 its enhanced ability to render shadow detail. This new film produces rich, deep blacks with a remarkable amount of detail.

### Natural Color Reproduction (atmospheric color)

ETERNA 400 is characterized by a subtle palette with muted saturation. Skin tones in particular are smooth and natural.

### Exceptionally fine grain

Super Nano-structured  $\Sigma$  Grain Technology achieves an optimum combination of high speed and ultra fine grain, producing superb image quality in a variety of scenes and situations.

### High speed, with smooth gradation

ETERNA 400 produces a smooth low-contrast tonal scale, from bright, clean highlights to deep, dark shadows. Highlights do not blow out, and the soft tonality is preserved over a wide range of exposure conditions.

### Excellent sharpness

In addition to Super Nano-structure  $\Sigma$  Grain Technology, ETERNA 400 also incorporates Super-Efficient DIR-Coupler Technology, boosting interlayer effect for enhanced sharpness. Improved sharpness balance also reduces the amount of noise generated during the film scanning process.

### Enhanced telecine characteristics

Extended linear response and exceptional color balance minimize the need for color adjustment during telecine transfer. The high volume of image data in the shadows facilitates digital processing, extending the creative boundaries of commercials and other TV work.

*Enhanced shadow detail.  
Expanded latitude and soft, smooth gradation.  
ETERNA extends the boundaries of creative imaging.*

*Introducing new ETERNA 400. Remarkable shadow detail and exceptional ability to capture images that extend the boundaries of creative imaging. Fujifilm's advanced technologies give this new-generation motion picture film exceptionally fine grain and superb, smooth tonality, producing natural, attractive skin tones. In addition to extended latitude, this new E.I. 400-rated film also offers enhanced telecine characteristics and film scanning response, enabling it to deliver outstanding image quality under a variety of conditions. Break new ground in creative imaging with ETERNA 400.*

## FUJICOLOR NEGATIVE FILM

# ETERNA

# 400

35mm Type 8583 / 16mm Type 8683

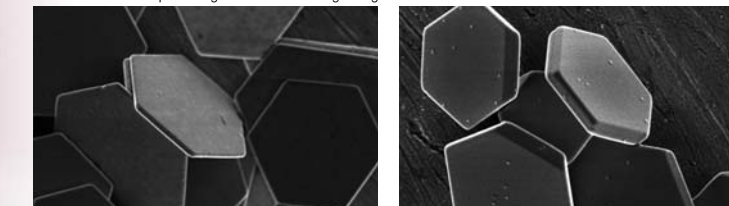


## [ Three Technologies Achieve Dramatic Image Quality ]

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

Fujifilm has developed a new 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. This technology makes it possible to reduce the volume of the grain to approximately 2/3 the size of that of previous color negative films with the same speed.

• Electron microscope enlargement of flat hexagonal grain



ETERNA 400 (8583,8683)

F-400 (8582,8682)

### 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 new DIR coupler has been developed to work effectively with the new Nano-structured  $\Sigma$  Grain, resulting in further enhancements in color and sharpness.

### Super-Efficient Coupler Technology

A new 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) . . . 400  
Daylight . . . 250 (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 400 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	400
Daylight (sunlight + skylight)	Fuji Filter LBA-12 or Kodak Filter No.85	250
Metal halide lamps (e.g. HMI)	Fuji Filter LBA-12 or Kodak Filter No.85	250
Ordinary fluorescent lamps (White light type)	Fuji Filter CC-30R or Kodak Filter CC30R	200
(Daylight type)	Fuji Filter LBA-12 or Kodak Filter No.85	250
Three-band fluorescent lamps (White daylight type (5000K))	Fuji Filter CC-30R or Kodak Filter CC30R	200
(Daylight type (6700K))	Fuji Filter CC-40R or Kodak Filter CC40R	160

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

### • Reciprocity characteristics

ETERNA 400 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 400 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 (FN83), and machine-readable bar code for each, film name (FUJI 400), 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	
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 core		

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.