

KODALITH Ortho Films 2556,6556, Type 3

Features/Customer Product Specification

- Extremely high contrast, orthochromatic film designed primarily for making line and halftone negatives for photomechanical reproduction.
- Wide exposure and development latitude.
- Produces sharp halftone dots suitable for dot etching.
- Dimensionally stable ESTAR base (for all applicable films).
- Can be used in professional applications for copying line originals, for producing negative slides from line copy (e.g., title slides), and for special effects photography.
- Can also be used for making highlight masks to improve the reproduction of important highlight detail when making duplicates from transparencies or color prints by the dye transfer process.

Safelight Recommendations

Use a KODAK 1A Safelight Filter/light red in a suitable safelight lamp equipped with a 15-watt bulb. Keep the film at least 4 feet (1.2 meters) from the safelight. Avoid prolonged exposure to safelight illumination.

Storage

Keep unexposed film and processed film in a cool, dry place. Process film as soon as possible after exposure.

Exposure

EXPOSURE – GRAPHICS APPLICATION

(for films processed in KODALITH Developers)

Caution: To prevent pinholes and spots, be sure the film and copyboard glass are clean and free of dust.

Relative Exposure Index –

These indexes are provided primarily as indicators of the relative speed of this film when compared with other Kodak graphic arts materials.

	Pulsed-Xenon	Quartz-Halogen or Tungsten
ISO/ASA	12	8
DIN	12	10

One camera-stop increase is indicated by doubling the index number in the ISO/ASA System and by increasing the number by three in the DIN System. The pulsed-xenon value indicates the film's relative speed to pulsed-xenon illumination as measured by a light integrator. Index numbers for quartz-halogen or tungsten light sources can be used with photoelectric exposure meters to help establish trial exposures.

Note: It is recommended that the manufacturer of high intensity ultraviolet lamps be consulted for safety information pertaining to ultraviolet radiation and ventilation requirements due to ozone generation.

Example of Line Exposure —

For the same-size (1:1) line reproduction with two 1500-watt pulsed-xenon lamps in reflectors 3 feet from the center of the copyboard, expose for 8 seconds at f/22.

For a same-size (1:1) line reproduction with 500-watt quartz – iodine (3200 K) lamps in reflectors about 3 feet from the center of the copyboard, expose for 16 seconds at f/22.

Tray Processing

Notice: Observe precautionary information on product labels and on the Material Safety Data Sheets.

1. Develop at 68°F (20°C) with continuous agitation for tray and 5-second agitation for every 30 seconds in small tank for approximate times (in minutes) given:

Developer	Halftone Negative	Line Negative	Development Range
KODALITH Super RT	2 ¾	2 ¾	2 ¼ to 3 ¼
KODALITH Liquid	2 ¾	2 ¾	2 ¼ to 3 ¼
KODAK D-11*	--	2 ¼	2 ¼ to 3 1/4

*KODAK D-11 Developer produces 2 times higher Exposure Index.

Temperature	Recommended Time	Useful Range
65°F (18°C)	3 ½ min	2 ½ to 3 ½ min
68°F (20°C)	2 ¾	3 to 3 ½
70°F (24°C)	2 ¾	2 ½ to 3 1/3
75°F (24°C)	2 ½	2 to 3
80°F (27°C)	1 ¾	1 ½ to 2 1/2

2. Rinse at 65 to 80°F (18 to 27°C) with agitation

KODAK Indicator Stop Batch	10 seconds
Or diluted (4%) acetic acid solution	10 seconds

3. Fix at 65 to 80°F (18 to 27°C) with frequent agitation, for twice the amount of time that it takes the film to clear.

KODAK 3000 Fixer and Replenisher	1 to 2 minutes
KODAK 3001 Fixer and Replenisher	1 to 2 minutes
KODAK Rapid Fixer	1 to 2 minutes

4. Wash at 65 to 80° (18 to 27°C) in running water for about 10 minutes
5. Dry in a dust-free place.

MECHANIZED PROCESSING:

The recommended starting point for optimum results using KODALITH Blender Concentrates is:

Deep-Tank Processors	80 seconds at 80°F (26.5°C)
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Reduction and Dot Etching

Reduction and dot etching by conventional techniques may be done with this film. KODAK Dot Etching Solution works well for this purpose.

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1) **Support**

Dimensionally stable support:

4556	4-mil (0.004-in., 0.10 mm)	ESTAR Base
6556	5.3-mil (0.0053-in., 0.135 mm)	Acetate Base

(Discontinued Films)

3556	205-mil (0.0025-in., 0.064 mm)	ESTAR Thin Base
4556	7-mil (0.007-in., 0.18 mm)	ESTAR Thick Base
8556	3.2-mil (0.0032-in., 0.081 mm)	Acetate Base

2) **Dimensional Stability**

Dimensional stability is an all-inclusive term. In photography, it applies to size changes caused by changes in humidity and in temperature, and by processing and aging. The absence of solvent in ESTAR Base is one of the reasons why ESTAR Base films show excellent dimensional stability. The dimensional properties of ESTAR Base may vary slightly in different directions within a sheet; the differences that may exist, however, are not always between the length and width directions.

Determined in accordance with ISO Standards; sec TI1450.

Thermal Coefficient of Linear Expansion –

Unprocessed or processed:	0.001% per °F
	0.0018% per°C

Humidity Coefficient of Linear Expansion – 2556 Film:

Unprocessed:	0.0025% per %RH
Processed	0.0020% per% RH

4556 Film (Discontinued 1995):

Unprocessed:	0.0018% per %RH
Processed	0.0015% per% RH

Processing Dimensional Change –
Dependent on drying conditions

3) **Reciprocity**

With recommended processing, the reciprocity speed change is negligible (1/3 – photographic stop or less) within exposure range of 1/1000 second to 100 seconds; there is no change in contrast.

4) **Graphs¹**

Curves For Publication

Characteristic –

- A) KODAK Blender Concentrates (3-85)
- B) KODALITH Developer (4-87)
- C) KODAK D-11 (4-87)

Spectral Sensitivity –

- D) (To be Supplied)

Reciprocity –

- E) (To be Supplied)

The products mentioned in this document may not be available in all regions or countries. If you have questions or need assistance, contact your local Kodak Polychrome Graphics representative or visit our website:

www.kpgraphics.com.

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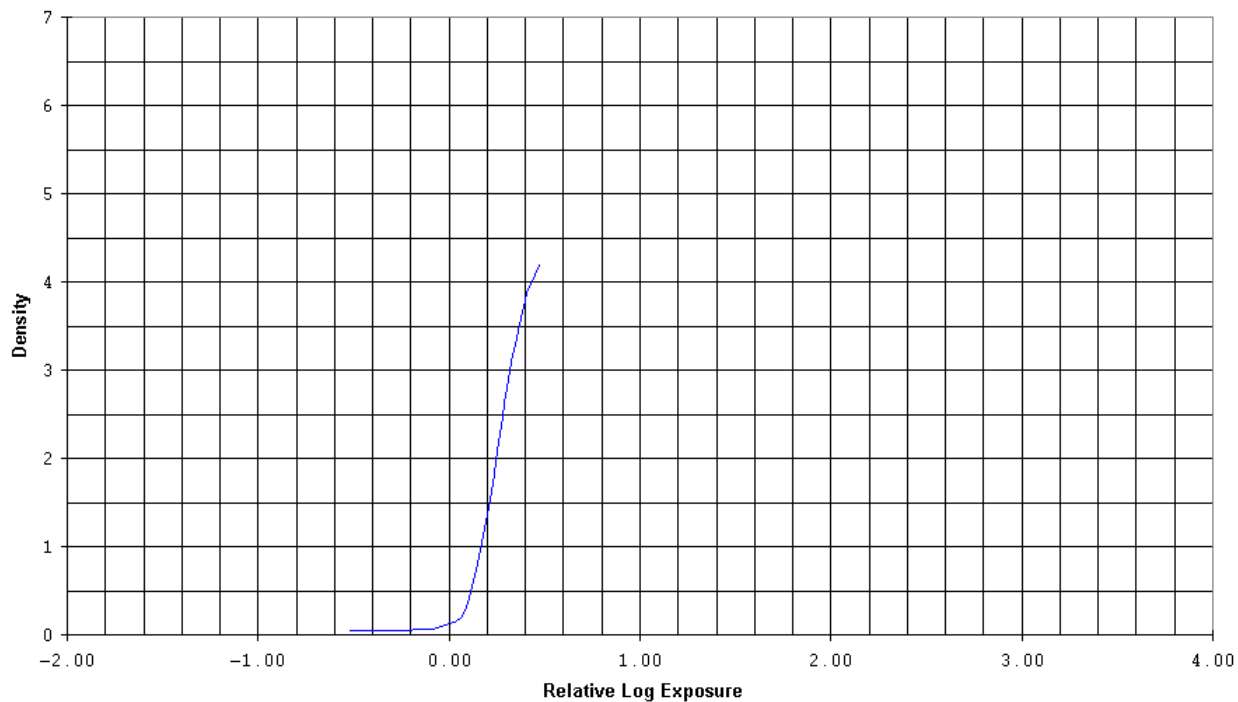
Kodak Polychrome Graphics
Norwalk, CT 06851
USA

End of Data Sheet

¹ NOTICE: While the data presented are typical f production coatings, they do not represent standards that must be met by Kodak Polychrome Graphics. Varying storage, exposure, and processing conditions will affect results. The company reserves the right to change and improve product characteristics at any time.

TI1105A 03-85
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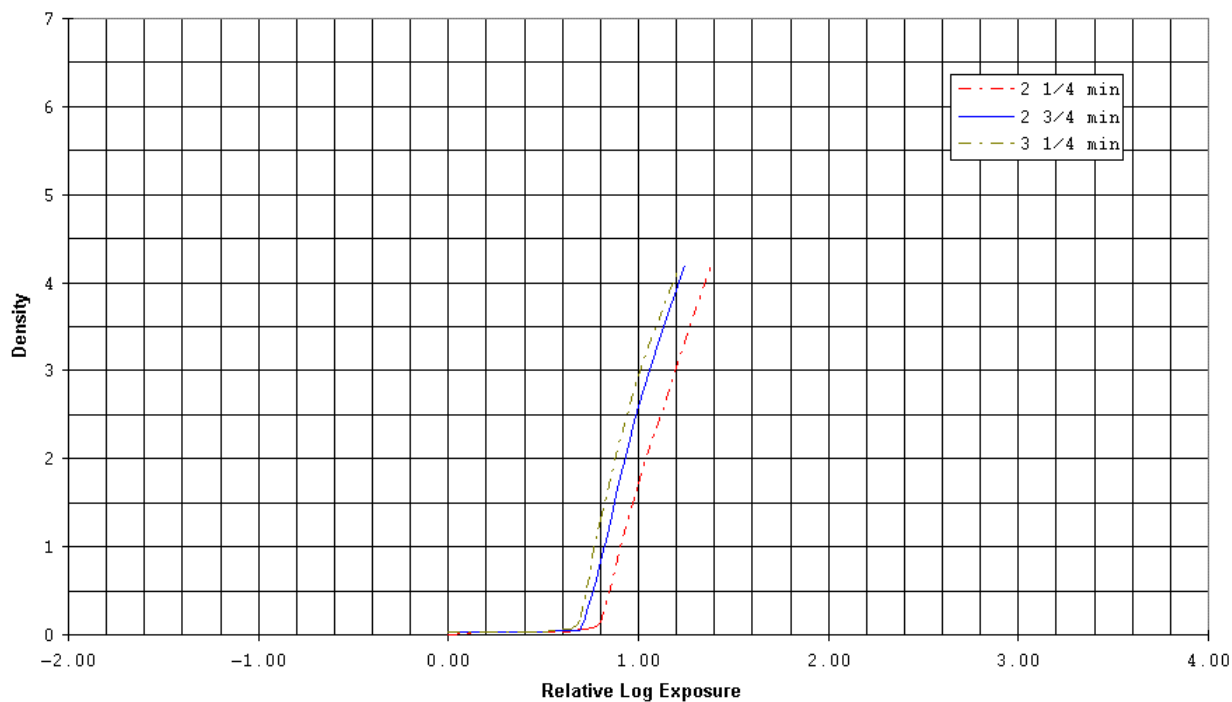
KODALITH Ortho Films 2556,3556,4556,6556,8556, Type 3
Pulsed-Xenon 10 sec; KODALITH Blender Concentrates, 1 min 33 sec, 80F (27C),
KODALITH Processor, Model 324



Notice: While the data presented are typical of production coatings, they do not represent standards which must be met by Eastman Kodak Company. Varying storage, exposure, and processing conditions will affect results. The company reserves the right to change and improve the product characteristics at any time.

TI1105B 4-87
CHARACTERISTIC, For Publication

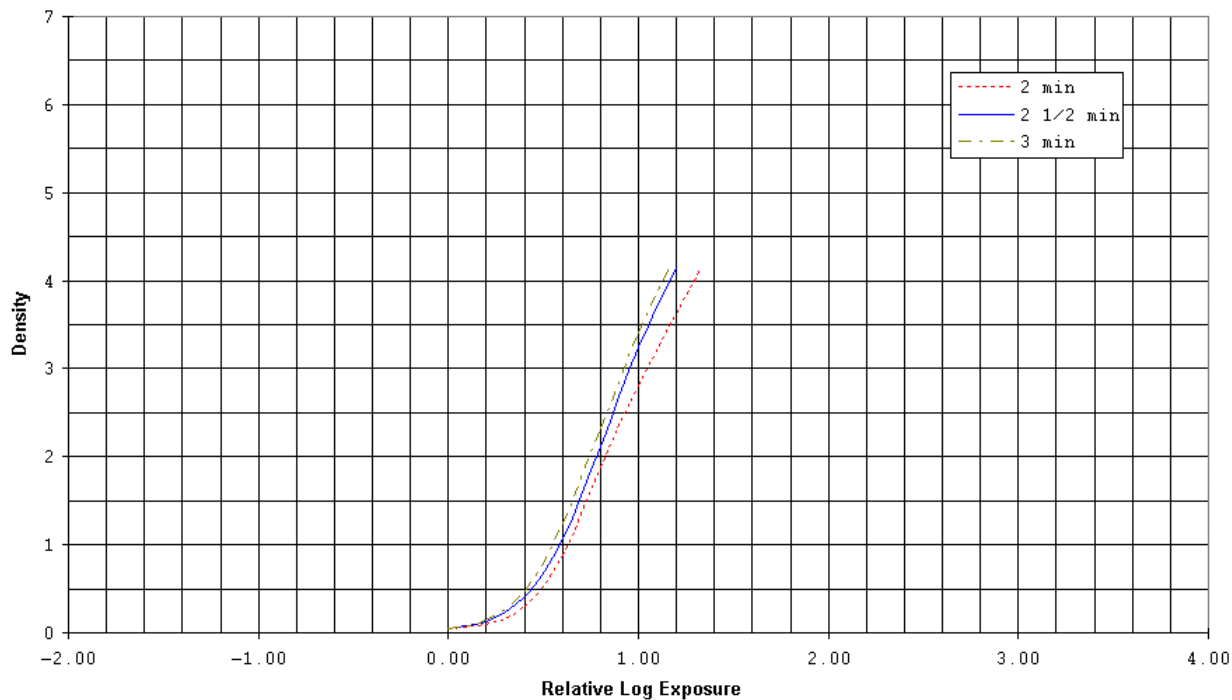
KODALITH Ortho Films 2556,3556,4556,6556,8556, Type 3
Tungsten 10 sec, small tank, KODALITH Liquid Developer (equal parts of stock solution A and B),
agitate 5 sec every 30 sec throughout development



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TI1105C 4-87
CHARACTERISTIC, For Publication

KODALITH Ortho Films 2556,3556,4556,6556,8556, Type 3
Tungsten 10 sec, small tank, KODAK Developer D-11
agitate 5 sec every 30 sec throughout development



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