# Film Data Sheet T-53 4 x 5 Black & White Sheet Film





Film Speed ISO 800/DIN 30

## Format

4 x 5 in. (10.2 x 12.7 cm) Sheet Film

Image Area 3<sup>1</sup>/2 x 4<sup>1</sup>/2 in. (9 x 11.4 cm)

Finish Glossy

**Exposures per Unit** 20 exposures per box

**Development Time** 

45 seconds at 70°F

## Description

Medium-contrast 4 x 5 sheet film for detailed black & white prints. Coaterless, wide tonal range for excellent highlight and shadow detail.

## **Key Applications**

- SEM imaging
- Microscope imaging
- Test shots
- Copystand photography

## **Compatible Hardware**

- Any instrument or camera equipped with a Model 545/545i Film Holder
- MP-4+ Camera

## **Special Treatment**

Processing the film for longer than 3 minutes may affect image contrast and density to some extent. For optimum image stability at temperatures above 75°F (24°C), film should not be processed for longer than one (1) minute. At colder temperatures, process the film for a longer time as indicated in the chart below. A picture processed for too short a time will have dull grays, mottle and little contrast. However, if more contrast is required, the processing time may be extended by 15 seconds (for example, process for 60 seconds rather than 45 seconds). This may increase the contrast and density, but may also result in some loss of gray.

### Caution

This film uses a small amount of caustic paste. If any paste appears, avoid contact with skin, eyes and mouth and keep away from children and animals. If you get some paste on your skin, wipe it off immediately, then wash with water to avoid an alkali burn. If eye contact occurs, quickly wash the area with plenty of water and see a doctor. Keep discarded materials away from children, animals, clothing and furniture.

### **Limited Warranty**

See information on the film box

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Film Data Sheet Technical Data

# T-53 (4x5 sheet), T-553 (4x5 pack) and T-803 (8x10 sheet) - B&W High Speed Instant Peel-Apart Coaterless Film



The information in this data sheet represents the typical performance of Polaroid's T-53, T-553 and T-803 black and white high speed films. Specific film lots may vary.

Recommended speed (ISO)	800/30°
Recommended processing time at 70°F/21°C	45 seconds
Spectral sensitivity	Panchromatic
Resolution (1000:1)	12 - 15 line pairs/mm
Contrast	Medium

#### Processing time and temperature

For best results process at temperatures above 60°F(16°C).

۴	°C	Time in seconds	Exposure Adjustment
95	35	30	-1/3 stop
90	32	30	None
75	24	30	None
70	21	45	None
65	18	60	None
55	13	85	1/3 stop



At 71° F/21° C: D-Max = 1.75

D-Min = .11 Slope = 1.64

#### Filter factors

	Filter no.	6	8	15	25	47	58
Light source at 3200°K - Tungsten	Aperture adjustment (f-stops)	1/3	1/2	2/3	1 1/2	3 1/2	3 1/2
	Filter factor (exposure multiplier)	1.3	1.4	1.6	2.8	11.2	11.2
Light source at 5500°K - Daylight	Aperture adjustment (f-stops)	2/3	1	1 1/3	2 1/2	2 2/3	3 1/3
	Filter factor (exposure multiplier)	1.6	2	2.5	5.6	6.3	10

D-Max: The density value for the film's darkest black.

**D-Min:** The lowest density value that a film exhibits. In prints, the whiteness of the brightest highlight, relative to the unprocessed print.

**Slope:** The positive ratio of the log E increments of the straight line region of the curve, as determined by the 1/4-3/4 increment method. The slope of an H&D curve indicates the overall contrast of a film: low contrast slopes less than 1.10; medium contrast slopes from 1.10 to 1.70; high contrast slopes greater than 1.70.

# Film Data Sheet Technical Data T-53 (4x5 sheet), T-553 (4x5 pack) and T-803 (8x10 sheet) - B&W High Speed Instant Peel-Apart Coaterless Film



#### **Reciprocity law failure**

A wide range of shutter speeds can be used without loss of film speed. For longer exposure times, some exposure compensation is suggested.

	Adjust aperture or time			
Indicated exposure time (sec.)	Aperture Corrected exposure time			
1/1000-1/10	None	Same		
1	+1/3 stop	1 1/2 sec.		
3	+2/3 stop	7 sec.		
10	+1 stop	25 sec.		
30	+1 1/3 stop	85 sec.		
100	+1 2/3 stop	450 sec.		



#### Speed variation relative to color temperature

3200°K	4800°K	5500°K	6500°K	7500°K	10,000°K
-1/3 stop	-	-	-	+1/3 stop	+1/3 stop





**Reciprocity:** The ability of the film to respond in a constant manner to a constant exposure (light intensity x time). Reciprocity failure occurs during very long or very short exposures, requiring the photographer to increase exposure.