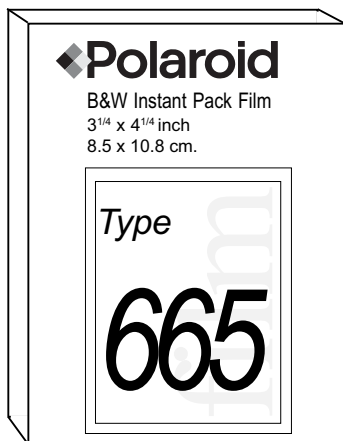


**Film Data Sheet**  
**T-665 Positive/Negative**  
**Black & White Pack Film**



**Film Speed**

ISO 80/DIN 20

**Format**

3<sup>1</sup>/<sub>4</sub> x 4<sup>1</sup>/<sub>4</sub> in. (8.5 x 10.8 cm)  
Pack Film

**Image Area**

2<sup>7</sup>/<sub>8</sub> x 3<sup>3</sup>/<sub>4</sub> in. (7.3 x 9.5 cm)

**Finish**

Glossy

**Exposures per Unit**

10 frames/box

**Development Time**

30 seconds at 65°F and above

**Description**

Medium-speed, medium-contrast, fine-grain film which produces high quality black and white prints and negatives suitable for enlarging.

**Key Applications**

- Old time photography
- Portraits
- Professional photography proofing

**Compatible Hardware**

- Cameras or instruments with CB-103 Back or OEM CB-100 Back (these holders are supplied by medium format camera manufacturers such as Mamiya, Hasselblad and Konica)
- Polaroid Model 405 Film Holder
- 600SE
- ProPack
- MP-4+ Camera

**Special Treatment**

Requires print coating the positive and clearing the negative. To clear the negative for reuse, immerse it in a sodium sulfite clearing bath immediately after development. Sodium sulfite powder is readily available from professional photographic supply dealers and chemical supply houses.

**Mix in the following proportions:**

Warm water:	2 liter or 70 fl. oz.
Sodium sulfite powder:	440 grams or 16 oz. (weight) (anhydrous/desiccated)

Slowly add the powder to the water; stir continuously until all powder is dissolved. Allow to cool to approximately 70°F(21°C) before using. Store the solution in brown, well-stoppered bottles or in a tank with a floating lid.

**To prevent scratches:**

Negative scratch resistance can be improved by treating the processed negative (after clearing in water and sodium sulfite) in a solution of **Kodak Rapid Fix with Hardener (parts A & B)** for two minutes. This solution should be made up and used in accordance with Kodak's recommended mix procedures, chemical caution statements, wash times and temperatures.

**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.

Film Data Sheet  
Technical Data

T-85, T-665 (positive/negative)  
Instant B&W Peel-Apart Pack Film



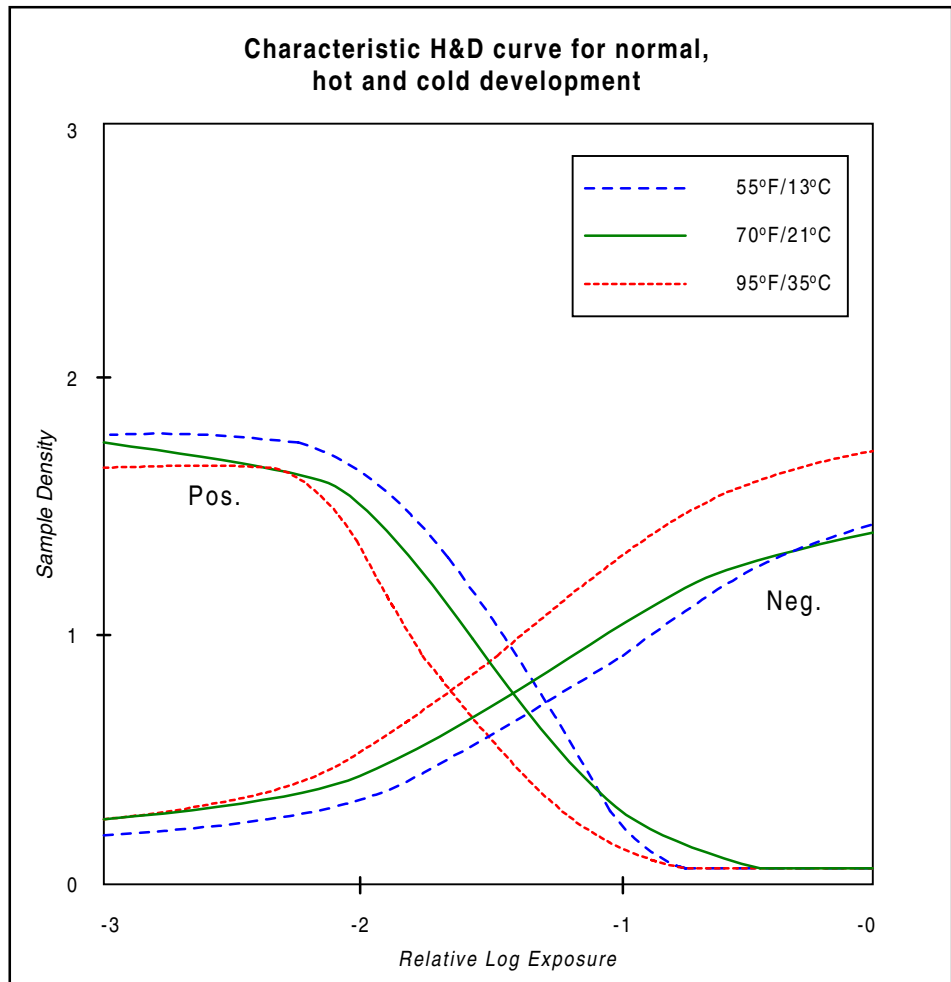
The information below represents the typical performance of Polaroid's T-665 black and white peel-apart film. Specific film lots may vary.

<b>Recommended speed (ISO)</b>	80 / 20°
<b>Recommended processing time and temperature</b>	30 sec. at 70°F/21°C
<b>Resolution (1000:1)</b>	13 - 16 line pairs/mm (print) 160 - 180 line pairs/mm (negative)
<b>Contrast</b>	Medium
<b>Spectral sensitivity</b>	Panchromatic

**Processing time and temperature**

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

°F	°C	Time in seconds
85+	29+	30
75	24	30
70	21	30
65	18	30
60	15	40
50	10	60



At 70°F/21°C: D-Max = 1.90(P)  
1.42(N)

D-Min = .10(P)  
.23(N)

Slope = 1.40(P)  
.70(N)

**Filter factors**

	Filter no.	6	8	15	25	47	58
Light source at 3200°K - Tungsten	Aperture adjustment (f-stops)	1/2	2/3	1	2 1/2	3 2/3	3
	Filter factor (exposure multiplier)	1.4	1.6	2	5.6	12.6	8
Light source at 5500°K - Daylight	Aperture adjustment (f-stops)	1	1	1 1/3	3 1/2	3	3
	Filter factor (exposure multiplier)	2	2.5	2.8	11.2	8	8

**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.

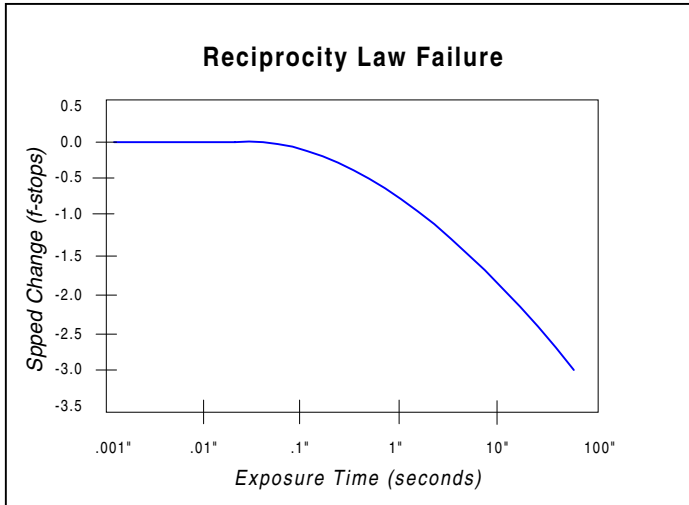
Film Data Sheet  
 Technical Data

**T-665 (positive/negative)**  
**Instant B&W Peel-Apart Pack Film**

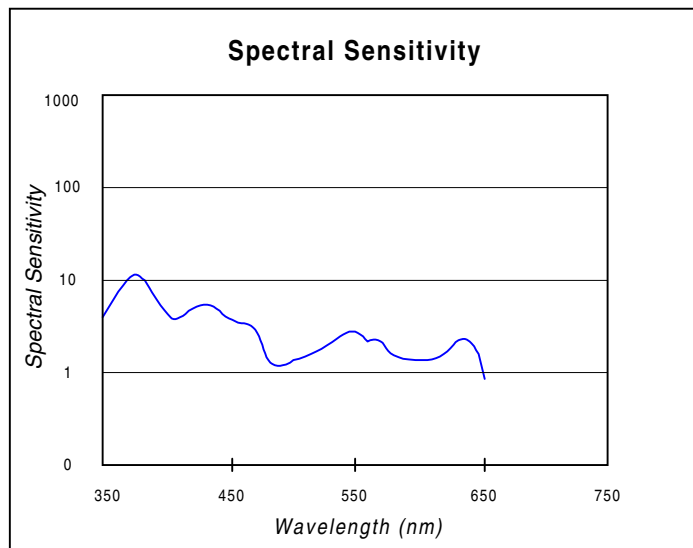
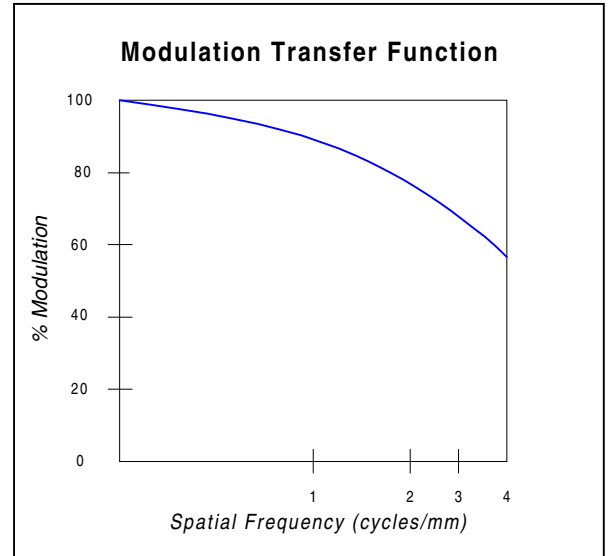


**Reciprocity law failure**

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



**Filter Factors**



**Processing the reusable negative**

In order to remove the reagent layer and the anti-halation dyes, the processed negative needs to be washed in an 18% sodium sulfite solution. The salts within the solution minimize swelling in the negative's gelatin layer that would be caused by washing in water only. Swelling can cause reticulation which would remain after the negative dries.

To prevent scratches:

Negative scratch resistance can be improved by treating the processed negative (after clearing in water and sodium sulfite) in a solution of **Kodak Rapid Fix with Hardener (parts A & B)** for two minutes. This solution should be made up and used in accordance with Kodak's recommended mix procedures, chemical caution statements, wash times and temperatures.

Ingredients	Metric	U.S.
Warm Water	2.0 liters	70 fl. oz.
Sodium sulfite (anhydrous)	440 grams	16 oz. (avdp)

**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.

**Spectral Sensitivity:** Shows the equivalent energy needed at each wavelength in order to activate the emulsion so that it produces a neutral density of .75.

# Type 665 Polaroid Positive/Negative Black & White Instant Pack Film



First prepare the negative-clearing solution  
Do this before the film is exposed and developed. Immediately after development (within 3 minutes) the negative must be immersed in an 18% sodium sulfite clearing bath.

## Preparation of the 18% sodium sulfite solution

Sodium sulfite powder is readily available from professional photographic supply dealers and chemical supply houses.

Mix in the following proportion:

- Warm water 2 liters 70 oz. (fluid)
- Sodium sulfite powder 440 grams 16 oz. (avdp.)  
(anhydrous/desiccated)

Slowly add the powder to the water; stir continuously until all powder is dissolved. Allow the solution to cool to approx. 70°F (21°C) before using. Store the solution in brown, well-stoppered bottles or in a tank with a floating lid.

Loading, exposing and processing film

See instructions supplied with your camera or film holder for detailed information.

**Important:** For best results in the minimum density areas of the negative, separating the negative and preparing it for printing should be done in dim light. If that is not possible, extend the development time. (Such extended development will improve the minimum density areas of the negative and assist in negative clearing, but may reduce the quality of the accompanying Polaroid print.)

## Separating the negative and print:

At the end of the full recommended development time, peel the print away from the negative using a swift unhesitating motion. Be careful not to touch or scratch the image surface of the negative or the print. Coat the print immediately (see Coating and care of prints.)

Temperature is important

Pictures may be exposed at any temperature, but the temperature of the film during development is important. Below 65°F (18°C), develop longer, as shown in the chart. At the lower temperatures, the speed of the negative will be reduced. Thus, a correctly exposed positive may be accompanied by a negative that is too thin. To get the best possible negative at these temperatures, give more exposure, so that you get a positive that is somewhat lighter than normal. Development below 50°F (10°C) is not recommended.

Temperature	Processing time
65°F+ 18°C+	30 sec.
60°F 15°C	40 sec.
50°F 10°C	60 sec.

Preparation of the negative for printing

**Important:** To avoid film damage, all solutions and wash water should be nearly the same temperature, ideally 65–75°F (18–24°C), when in use.

**Clear negative:** Immerse negative in sulfite solution and agitate gently for 30–60 seconds or longer, if desired. The solution can be used in trays (with emulsion side up), or in deep film tanks. Put each negative through individually or use clip-type film hangers such as the Kodak #6 hanger. Insert each negative carefully and keep the negatives from touching each other. Remove tabs and back coat material. Negative must be cleared of residual developer layer and opaque backcoat. Negative may remain in solution up to 72 hours.

**Note:** Do not use conventional fixer as a substitute for sodium sulfite as it will not remove the opacity layer from the negative. For information on treatment of the negative in the field, contact the Polaroid office nearest you.

**Temporary storage in water:** If you do not have immediate access to sodium sulfite, you can safely store developed negatives in water (about 70°F/21°C) for a short time. While negatives are in water, handle them carefully and do not attempt to rub off the developer layer. As soon as you can do so, treat the negatives in a sodium sulfite bath in the normal way.

**Wash negative:** Wash for 5 minutes in running water. For urgent use, 30 seconds will do; rewash later for permanence. Avoid scratching the negatives, by keeping them away from each other and from the sides of the container. Excessive washing may weaken the emulsion.

**Dip negative in wetting agent:** To avoid drying marks, use a wetting agent (such as Kodak Photo-Flo diluted at least 1:600). Follow manufacturer's instructions for use.

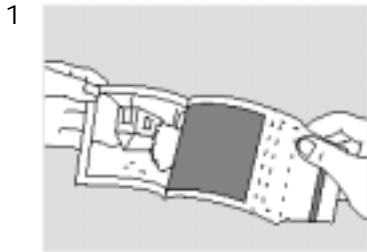
**Dry negative:** Hang up with commercially available film clips, hangers, clothespins, etc. Do not dry with excessive heat. Avoid dusty areas.

**Printing and retouching:** When dry, the negative can be retouched, if necessary, and enlarged by conventional techniques.

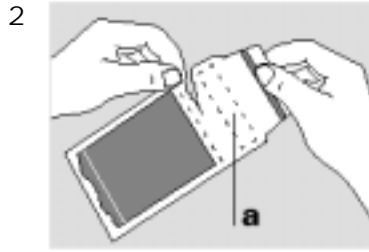
Coating and care of prints

Prints must be coated immediately after development to protect them against scratching and fading. Use the print coater packed in the plastic tube. Keep freshly coated prints separate from each other until they are thoroughly dry. Keep the coater fluid away from skin, clothing, furniture.

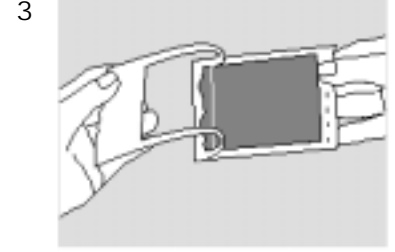
Type 665  
Polaroid Positive/Negative  
Black & White Instant Pack Film



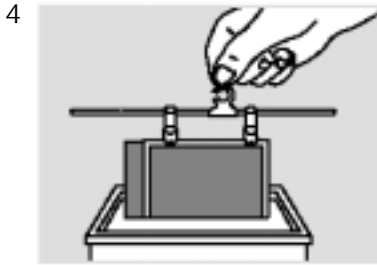
Peel print off in a swift, continuous motion.



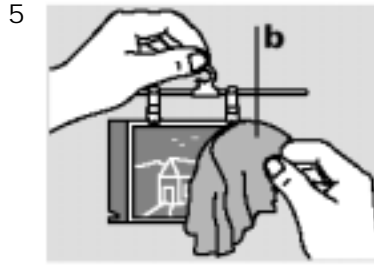
Holding negative top tab, tear off leader just below pod (a) and discard.



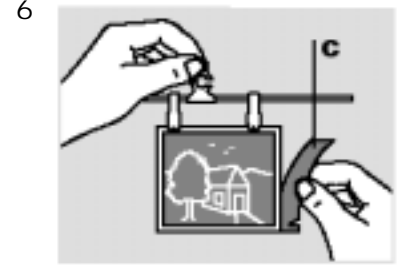
Holding negative by top tab, remove paper mask from negative and discard.



Agitate negative gently in sulfite 30-60 sec., or store in solution.



Remove from sulfite, pull off top tab and black back-coat (b); inspect negative.



Pull off bottom tab (c); store negative in sulfite or go to finishing process.