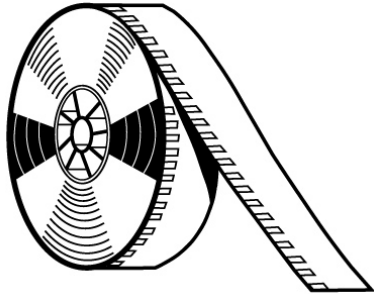


### Winding Designations

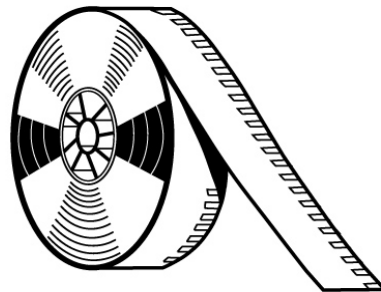
A plastic core is normally used with all 16mm films in lengths over 200 ft. and with all 35mm films in lengths over 100 ft. Camera spools are normally supplied with 35mm x 100 ft rolls and 16mm x 100 ft and 200 ft rolls.

It is necessary to designate the desired winding for 16mm film perforated one edge and for 35mm film with 16mm and 8 mm perforations. Proper choice of winding depends on the equipment upon which the film is to be used. The following sketches illustrate the various windings:

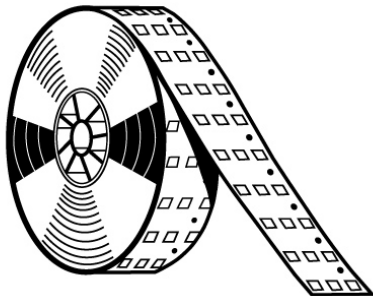


**16mm Winding A**  
**Emulsion Side in**

In the above sketches the film is wound on the cores and the emulsion side of the film faces the center of the roll. When the roll is held so that the outside or leader end of the film leaves the roll at the top and toward the right, Winding A has the perforations along the edge of the film toward the observer and Winding B has the perforations along the edge away from the observer.

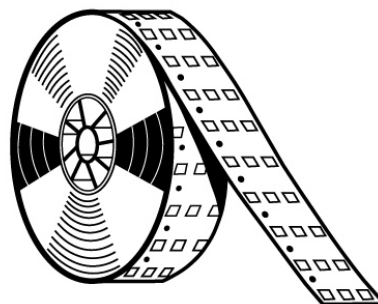


**16mm Winding B**  
**Emulsion Side in**



**35mm Winding A**  
**Emulsion Side In**

In the above sketches the film is wound on cores and the emulsion side of the film faces the center of the roll. When the roll is held so that the outside or leader end of the film leaves the roll at the top toward the right, Winding A has the small hole along the edge away from the observer and Winding B has the row of perforations with the small hole between the perforations toward the observer.



**35mm Winding B**  
**Emulsion Side In**

### Exposure Index

Where applicable, the exposure index is shown for both daylight and tungsten light exposure.

### Perforation Types

#### 35mm and 65mm End Use

1. BH-1870 – 35mm Bell-Howell film negative perforations with a pitch measurement of 0.1870” (long pitch) [SMPTE 93-1986]
2. BH-1866 – 35mm Bell-Howell film negative perforations with a pitch measurement of 0.1866” (short pitch) [SMPTE 93-1986]
3. KS-1870 – 35mm and 65mm Kodak standard positive perforations with a pitch measurement of 0.1870” (long pitch) [SMPTE 145-1988; SMPTE 139-1986]
4. KS-1866 – 35mm and 65mm Kodak standard positive perforations with a pitch measurement of 0.1866” (short pitch) [SMPTE 145-1988; SMPTE 139-1986]
5. DH-1870 – 35mm Dubray-Howell film perforations with a pitch measurement of 0.1870” (long pitch) [SMPTE 237-1988]
6. CS-1870 – 35mm Cinemascope film perforations with a pitch measurement of 0.1870” (long pitch) [SMPTE 102-1986]
7. KS-1870 – 70mm film perforated 65mm Kodak standard positive perforations with a pitch measurement of 0.1870” (long pitch) [SMPTE 119-1988]

#### 16mm End Use

8. 2R-2994 – 16mm film perforated two edges with a perforation pitch of 0.2994” (short pitch) [SMPTE 110-1986]
9. 2R-3000 – 16mm film perforated two edges with a perforation pitch of 0.3000” (long pitch) [SMPTE 110-1986]
10. 1R-2994 – 16mm film perforated one edge with a perforation pitch of 0.2994” (short pitch) [SMPTE 109-1986]
11. 3R-2994 – 35mm film perforated 16mm with a perforation pitch of 0.2994” (short pitch) [SMPTE 171-1986]
12. 16mm film perforated one edge with a perforation pitch of 0.3000” (long pitch) [SMPTE 109-1986]
13. 3R-3000 – 35mm film perforated 16mm with a perforations pitch of 0.2994 (long pitch) [ANSI/SMPTE 171-1986]

#### Super 8 and 8mm End Use

14. 2R-1500 – 16mm film perforated two edges with perforation pitch of 0.1500” [ANSI PH22.17-1982]
15. 1R-1667 – 8mm film perforated Super 8 one edge with a perforation pitch of 0.1667” (long pitch) [SMPTE 149-1988]
16. 2R-1664 (1-4) – 16mm film perforated Super 8 two edges in the 1-4 position with a perforation pitch of 0.1664” (short pitch) [SMPTE 168-1986]
17. 2R-1664 (1-3) – 16mm film perforated Super 8 two edges in the 1-3 position with a perforation pitch of 0.1664” (short pitch) [SMPTE 151-1987]
18. 2R-1664 – 35mm film perforated Super 8 two edges in the 1-0 position with a perforation pitch of 0.1664” (short pitch) [SMPTE 169-1986]
19. 5R-1667 – 35mm film perforated Super 8 in the 1-3-5-7-0 position with a perforation pitch of 0.1667” (long pitch) [SMPTE 165-1988]

# Kodak Description of Specification Numbers

Sp No	Width in mm	Perforation	Core/Spool/Mag	Winding	Remarks
<b>35mm</b>					
239	35	35mm BH	Y		Footage numbered
240	35	35mm BH	Y		Same as Sp 239, wound emulsion out, footage numbered
241	35	35mm DH	Y		All films long pitch 0.1870; footage numbered
242	35	35mm BH	Y		For high-speed cameras; footage numbered
415	35	35mm KS	S-83 100-ft spool		Footage numbered
417	35	35mm BH	S-83 100-ft spool		none
651	35	35mm KS	AA		none
663	35	35mm KS	U		none
665	35	35mm KS	U		none
666	35	35mm KS	Y		none
668	35	35mm KS	Y		none
669	35	35mm KS	U	B	Perforated one edge
701	35	35mm BH	Y		none
718	35	35mm BH	U		Footage numbered
720	35	35mm BH	U		none
721	35	35mm BH	U		Same as Sp 718, wound emulsion out, footage numbered
722	35	35mm BH	U		Precision perforations; reduced dimension tolerances
727	35	35mm BH	U		Footage numbered
739	35	35mm BH	Y		Footage numbered, except ESTAR Base
746	35	35mm BH	U		For leader stock
767	35	none	Y		Non-canned packaging, no frame line markings
779	35	35mm KS	Y		none
789	35	35mm KS	Y		none
<b>35mm Multi-Perforated</b>					
256	35	35/32-4 Row	Y		none
273	35	Super 8-5 Row	Y	B	Use Sp 715 for Winding A
694	35	35/32-2 Row	Y		none
715	35	Super 8-5 Row	Y	A	Use Sp 273 for Winding B
730	35	35/32-2 Row	Y		Non-canned packaging, no frame line markings
733	35	35/16-3 Row	Y	B	Non-canned packaging, no frame line markings
735	35	35/16-3 Row	Y	B	none
780	35	8mm-2 Row	U	A	none
791	35	35/32-2 Row	U		none
794	35	35/16-3 Row	U	A	Use Sp 797 for Winding B
<b>65mm and 70mm</b>					
332	65	KS 1866	P	Emulsion In	Latent image sequential numbers every 120 perfs
333	65	65mm KS	P		Latent image sequential numbers every 80 perfs
334	65	KS	PA	Emulsion In	Latent image sequential numbers every 120 perfs
335	65	65mm KS	PA		Latent image sequential numbers every 80 perfs
542	70	65mm KS	S		none

# Kodak Description of Specification Numbers

Sp No	Width in mm	Perforation	Core/Spool/Mag	Winding	Remarks
<b>16mm</b>					
230	16	16mm-2 Edges	Z		0.2994 pitch; footage numbered
430	16	16mm-2 Edges	R-90 100-ft spool		0.3000 pitch for high-speed cameras
432	16	16mm-2 Edges	R-190 200-ft spool		0.3000 pitch for high-speed cameras
434	16	16mm-2 Edges	S-153 400-ft spool		0.3000 pitch for high-speed cameras
435	16	16mm-2 Edges	Z		0.3000 pitch for high-speed cameras
445	16	16mm-1 Edge	A	A	For Aaton A-Minima Camera
449	16	16mm-2 Edges	R-90 100-ft spool		none
450	16	16mm-2 Edges	R-190 200-ft spool		none
451	16	16mm-2 Edges	T		2-in. O.D. core for lengths through 400 ft
452	16	16mm-2 Edges	Z		3-in. O.D. core for lengths over 400 ft
452N	16	16mm-2 Edges	Z		0.2994 pitch
455	16	16mm-1 Edge	R-90 100-ft spool	B	none
456	16	16mm-1 Edge	R-190 200-ft spool	B	none
457	16	16mm-1 Edge	T	B	2-in. O.D. core for lengths through 400 ft
458	16	16mm-1 Edge	Z	B	3-in. O.D. core for lengths over 400 ft
458J	16	16mm-1 Edge	Z	B	0.2994 pitch
462N	16	16mm-2 Edges	R-232 50-ft spool		0.3000 pitch for high-speed cameras
467	16	8mm-2 Edges	Z		3-in. O.D. core for lengths over 400 ft
561	16	16mm-2 Edges	Z		Non-canned packaging; 3-in. O.D. core for lengths over 400 ft
563	16	16mm-1 Edge	Z	B	Non-canned packaging; 3-in. O.D. core for lengths over 400 ft
565	16	16mm-1 Edge	Z	A	Non-canned packaging; 3-in. O.D. core for lengths over 400 ft
578	16	16mm-2 Edges	S-153 400-ft spool		none
580	16	Super8-2 Edges	R-90 100-ft spool		For double Super 8 movie cameras for 1-4 position
612	16	16mm-1 Edge	T	A	none
618	16	16mm-1 Edge	Z	A	3-in. O.D. core for lengths over 400 ft
622	16	Super 8 (1-4)	Z		none
628	16	Super 8 (1-3)	Z	B	For 1-4 position; Use Sp 622
635	16	None	Z		none
<b>Super 8 mm</b>					
464	8	Super 8-1 Edge	Super 8 cartridge	B	For Super 8 cartridge cameras
575	8	Super 8-1 Edge	Dispenser container	A	For 8mm leader products only
584	8	Super 8-1 Edge	Dispenser container	B	For 8mm leader products only

**Note:** A specification number when combined with a film emulsion letter designation is known as the Identification Number (e.g., SPP666).