



Secondary Release Liners

4935 • 4987 • 4988 • 4994 • 4997 • 4998 • 4999 • 5002 • 5002D
5051 • 5053 • 5932

Technical Data

January 2022

Product Description 3M™ Secondary Liners are available in a variety of constructions ranging from silicone coated densified kraft, polycoated paper and polyester liners to non-silicone polyester liners. Some liners are available either silicone coated one side or both sides. Please see the chart for additional information.

Secondary Liner Construction

3M Liner Number	Material / Color	Thickness = mils (Tolerance)	Release Coating 1 or 2 sides	Printable
4935	Polyester / Clear	2.91(2.65 – 3.16)	1 (fluoropolymer/non-silicone)	No
4987	HDPE / Clear	3.0 (2.6 – 3.4)	1	No
4988	85# PCK (polycoated kraft)	6.4 (6.05 – 6.75)	1	Yes
4994	55# DK (densified kraft) white	3.2 (3.05 – 3.35)	2 outside = low; inside = medium	No
4997	70# DK (densified kraft)	4.0 (3.5 – 4.7)	1	No
4998	58# PCK (polycoated kraft)	4.2 (3.85 – 4.55)	2 Matte = low; gloss = medium	No
4999	55# DK (densified kraft)	3.2 (3.05 – 3.35)	1	Yes
5002	Polyester / Clear	1.97 (1.91 – 2.03)	1 (fluoropolymer/non-silicone)	No
5002D	Polyester / Clear	1.97 (1.91 – 2.03)	2 (fluoropolymer/non-silicone)	No
5051	58# PCK (polycoated kraft)	4.2 (3.85 – 4.55)	1	Yes
5053	Polyester / Clear	2.91(2.65 – 3.16)	1 (fluoropolymer/non-silicone)	No
5932	Polyester / Clear	1.97 (1.91 – 2.03)	1 (fluoropolymer/non-silicone)	No

Always test liners by bonding a single coated tape to each side to determine low vs. medium release side in case material has been re-slit and sides have been reversed.

Chart is for reference purposes only. Testing with the actual adhesive and liner is highly recommended.

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3M™ Secondary Release Liners Liner Release Data (grams/inch)												
Product Name	Liner Description	Liner Thickness	Release Rate (g/in)									
			3day	3day	3day	3day	3day	3day	3day	3day	3day	3day
Material	Carrier	Release Rate (g/in)	3day	3day	3day	3day	3day	3day	3day	3day	3day	3day
4935	29 mil Polyester	30 mil (0.07 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
4987	30 mil HFC Film	30 mil (0.07 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
4988	33 mil Polyester	33 mil (0.08 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
4994 (tactile)	55 mil Polyester (Elev. Side)	32 mil (0.08 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
4994 (hard)	55 mil Polyester (Flat Side)	32 mil (0.08 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
4997	70 mil Polyester	40 mil (0.08 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
4998 (tactile)	33 mil Polyester	42 mil (0.1 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
4998 (hard)	33 mil Polyester	42 mil (0.1 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
4999	55 mil Polyester	32 mil (0.08 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
5002	197 mil Polyester Film	197 mil (0.05 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
5002D (tactile)	197 mil Polyester Film (Elev. Side)	197 mil (0.05 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
5002D (hard)	197 mil Polyester Film (Flat Side)	197 mil (0.05 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
5051	55 mil Polyester	42 mil (0.1 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL
5932	20 mil Polyester	197 mil (0.05 mm)	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL	ATL

Liner release test is 90 inches/minute rate of peel
 DC = Double coated tape product with polyester or tissue carrier

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When adding a secondary release liner to an adhesive, the secondary release liner will have a lower release than the original manufactured liner release. If the original release liner needs to be removed after a secondary release liner is laminated in, the secondary liner release must be higher than the original liner release.

ATTL
ND

Liner release values increase over 100% with heat (USE CAUTION)

Liner release values are over 50 grams / inch or liner confusion occurs (NOT RECOMMENDED)

Adhesive transferred to Secondary Liner / Liner Confusion (NOT RECOMMENDED)

No Data Available

Available Sizes:

3M Liner Number	Minimum Width (inches)	Maximum Width (inches)	Standard Length (yards)
4935	3	13	360
4987	3	50	360
4988	3	50	360
4994	1	54	180
4997	3	48	360
4998	3	50	360
4999	3	54	360
5002	3	60	360
5002D	3	60	360
5051	3	48	360
5053	3	13	360
5932	3	13	360

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Fluoropolymer Liners

Liners 4935, 5053 and 5932 utilize a proprietary 3M fluoropolymer release coating. Fluoropolymer (non-silicone) release liners generally offer lower liner release than silicone based release coatings and are typically utilized in industries where silicone can affect other processes. 5932 generally offers the tightest liner release, 4935 offers a medium liner release level and 5053 offers the lowest liner release and is typically utilized with silicone based adhesives.

Typical Physical Properties and Performance Characteristics

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

When a 3M secondary liner is added to a pressure sensitive adhesive, in most cases the secondary liner will have lower liner release values than the original or primary liner as in most cases the adhesive will want to stay with the primary liner upon which it was manufactured. The chart on the preceding pages is for reference purposes only to provide some degree of information about the liner release values which may be expected when a given secondary liner is laminated to a selected adhesive family.

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