SAFETY & SECURITY FILM SPECIFICATIONS

PROFESSIONAL ANTI-FRAGMENTATION FILMS DESIGNED FOR GLASS HAZARD MITIGATION

PHYSICAL PROPERTIES — **PSI** = Pounds per square inch | **PLI** = Pounds per lineal inch (width) | **MD** = Machine Direction | **TD** = Transverse direction

ASTM D 882 TENSILE STRENGTH

FILM TYPE	TENSILE STRENGTH		BREAK STRENGTH		ELONGATION AT BREAK		D 3330 PEEL STRENGTH
	MD	TD	MD	TD	MD	TD	
	PSI	PSI	PLI	PLI	%	%	
SEC02	19,000	24,700	40	52	97%	46%	>5 lbs/in
SEC04	17,500	23,500	74	99	84%	94%	>5 lbs/in
SEC06	19,250	25,300	126	160	75%	35%	>5 lbs/in
SEC08	18,600	25,400	157	214	125%	101%	>5 lbs/in
SEC11	16,300	23,500	190	273	152%	142%	>5 lbs/in
SEC12	17,800	23,700	225	300	131%	74%	>5 lbs/in
SEC15	18,000	23,400	285	370	167%	124%	>5 lbs/in
SEC16	16,600	21,500	320	394	154%	103%	>5 lbs/in
S4DN20	22,900	32,600	96	137	102%	99%	>5 lbs/in
S4DN35	22,900	32,600	96	137	102%	99%	>5 lbs/in
S4SS20	22,900	32,600	96	137	102%	99%	>5 lbs/in
S4SS35	22,900	32,600	96	137	102%	99%	>5 lbs/in
S8DN20	22,050	30,000	186	253	90%	36%	>5 lbs/in
S8DN35	22,050	30,000	186	253	90%	36%	>5 lbs/in
S8SS20	22,050	30,000	186	253	90%	36%	>5 lbs/in

BASE FILM DATA

Tensile Strength

	MD	TD
	PSI	PSI
2 MIL	27,500	31,000
3 MIL	27,000	30,000
4 MIL	27,000	29,000
7 MIL	22,000	26,000

Break Strength

	MD	TD
	PLI	PLI
2 MIL	55	62
3 MIL	81	90
4 MIL	108	116
7 MIL	154	182

Reported values are typical properties and should not be used as a specification. Only the user is aware of the conditions in which the product will be used, it is the users responsibility to determine if the product is suitable for use. If the specific conditions of use are critically dependent on any properties or if you need further information contact your Johnson Window Films dealer.

TENSILE STRENGTH (PSI)

The tensile strength of a material is the maximum amount of stress that it can take before failure, such as breaking or permanent deformation. It is calculated by dividing the maximum load by the original minimum cross sectional area of the specimen. Calculated up from break strength.

BREAK STRENGTH (LBS/IN WIDTH)

Breaking strength is that force which is required to break the specimen. The appropriate reporting unit for this test is pounds per lineal inch. Used to determine tensile strength.

ELONGATION AT BREAK

Presented as a percentage in relation to the initial length before elongation. It is calculated by dividing the extension at the moment of rupture in the specimen multiplied by 100. It represents the amount of stretch exhibited by the sample prior to the failure point.

PEEL STRENGTH

The force required to remove coated material from a prescribed surface measured in pounds per inch.

Johnson® Window Films
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JWF 1808