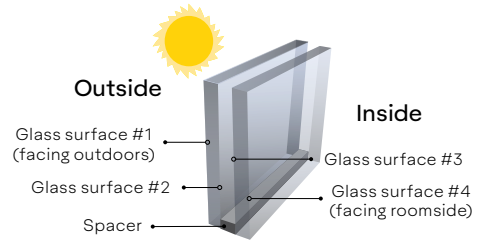


Film to Glass Chart March 2020

This Film To Glass (FTG) Application Chart is for guidance purposes only. For more information regarding the application of one of the products included in this FTG on a particular glass surface, please contact our technical team at gs.technical@ap.averydennison.com



✓ **Compatible**
Tinted glazing recommendations are based upon simulations done on 45% LT tinted glass. Film can be applied on darker tinted glass if glass is fully tempered or based on written approval from Avery Dennison technical support.

▲ **Tempered / heat strengthened**
Film can be applied only if the glass is tempered, and not annealed (for IGU requirement for both panels).

✗ **Incompatible**

● **Conditional Compatibility**
Film can be applied if VLT is lighter than 45% or if glass is fully tempered.

Interior

IMPORTANT:
This chart refers to annealed glass.
See terms and conditions

		Single Pane				IG Unit		Clear IG Unit - Low E	
		Clear	Tinted	Clear Laminated ³	Tinted Laminated	Clear	Tinted	On #3	High Performance on #2
Reflective	R Silver 20i	✓	✓	✓	●	✓	●	✓	✓
	R Silver 35i	✓	✓	✓	✓	✓	●	✓	✓
Dual Reflective	DR OptiTune 05i	✓	✓	✓	▲	✓	●	▲	✓
	DR OptiTune 15i	✓	✓	✓	▲	✓	●	✓	✓
	DR OptiTune 20i	✓	✓	✓	▲	✓	●	▲	✓
	DR OptiTune 30i	✓	✓	✓	✓	✓	●	▲	✓
	DR OptiTune 40i	✓	✓	✓	✓	✓	✓	▲	✓
	DR OptiShade 15i	✓	✓	✓	▲	✓	●	▲	✓
	DR OptiShade 25i	✓	✓	✓	▲	✓	●	▲	✓
	DR OptiShade 35i	✓	✓	✓	▲	✓	●	▲	✓
Spectrally Selective	SP e-Lite 45i ¹	✓	✓	✓	✓	✓	✓	▲	✓
	SP e-Lite 70i ¹	✓	✓	✓	✓	✓	✓	✓	✓
Neutral	NT PerLite Ceramic 20i	✓	✓	▲	▲	▲	●	▲	▲
	NT PerLite Ceramic 35i	✓	✓	✓	▲	✓	✓	▲	✓
	NT PerLite Ceramic 50i	✓	✓	✓	●	✓	✓	✓	✓
	NT PerLite Ceramic 70i	✓	✓	✓	●	✓	✓	✓	✓
	NT Natura 05i	✓	▲	▲	▲	▲	▲	▲	▲
	NT Natura 15i	✓	▲	▲	▲	▲	▲	▲	▲
Design	DS Matte 2 mil i	✓	✓	✓	▲	✓	●	✓	✓
	DS Black i	▲	▲	▲	✗	✗	✗	✗	✗
	DS White i	✓	✓	✓	▲	✓	●	▲	▲
	DS UV Filter i	✓	✓	✓	✓	✓	✓	✓	✓
	DS Print SR 2/4 mil i ⁴	✓	✓	✓	✓	✓	✓	✓	✓
	Solar Safety	R Silver 20 4 mil	✓	✓	✓	●	✓	●	✓
NT PerLite Ceramic 35 6mil		✓	✓	✓	▲	✓	✓	▲	✓
Safety & Security	SF Clear 4/7/8/12/15 mil i	✓	✓	✓	✓	✓	✓	✓	✓
	SF Matte 5/12 mil i	✓	✓	✓	▲	✓	●	✓	✓
	AG Clear 4/6 mil ix	✓	✓	✓	✓	✓	✓	✓	✓

1. Must be sealed if within 10 miles / 16km of the ocean. Use neutral sealing agent Dow Corning 791 or 795, Max 5000 by GE or equivalent neutral silicone seal agent. No edge sealing required on such location in case of fixed/stationary/immovable windows that are not exposed to environment.
2. Projects larger than 5500 sqft (500 sqm) need prior written approval from Avery Dennison.
3. Laminated clear applies only to 1/4" + 1/4" (6.35mm + 6.35mm) structures and thinner.
4. Light and white inks are approved for print on DS Print SR films. Other colored or dark inks printed on DS Print SR films require prior approval from the Avery Dennison technical support team. DS Print SR films are not suitable for direct exposure to the sun.
5. Refers to application of clear safety films unless it's in combination with other Avery Dennison window films in which case the Safety Clear Mod film receives the characteristics and warranty of the film that is applied on it.
6. Window films are not warranted for seal failure.



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Film to Glass Chart March 2020

✓ Compatible

Tinted glazing recommendations are based upon simulations done on 45% LT tinted glass. Film can be applied on darker tinted glass if glass is fully tempered or based on written approval from Avery Dennison technical support.

▲ Tempered / heat strengthened

Film can be applied only if the glass is tempered, and not annealed (for IGU requirement for both panels).

Exterior

All exterior films require sealing! Use neutral sealing agent Dow Corning 791 or 795, Max 5000 by GE or approved equivalent neutral silicone seal agent for exterior applications.

^ Laminated clear applies only to 1/4" + 1/4" (6.35 mm + 6.35 mm) structures.

	Single Pane				IG Unit		Clear IG Unit - Low E		IG Unit Low E
	Clear	Tinted	Clear Laminated	Tinted Laminated	Clear	Tinted	On #3	High Performance on #2	Solar coated glass #2 + High Performance Low E #3
Reflective	R Silver 20X	✓	✓	✓	✓	✓	✓	✓	✓
	R Silver 35X	✓	✓	✓	✓	✓	✓	✓	✓
	R Silver 20X Poly	✓	✓	✓	✓	✓	✓	✓	✓
	R Silver 20 XTRM	✓	✓	✓	✓	✓	✓	✓	✓
	R SkyLite 20 XTRM	✓	✓	✓	✓	✓	✓	✓	✓
	R SkyLite 20 XTRM Poly	✓	✓	✓	✓	✓	✓	✓	✓
Dual Reflective	DR Grey 10X	✓	✓	✓	✓	✓	✓	✓	✓
	DR Grey 20X	✓	✓	✓	✓	✓	✓	✓	✓
	DR Grey 35X	✓	✓	✓	✓	✓	✓	✓	▲
	DR Grey 10 XTRM	✓	✓	✓	✓	✓	✓	✓	✓
	DR Grey 20 XTRM	✓	✓	✓	✓	✓	✓	✓	✓
Spectrally Selective	SP e-Lite 45X	✓	✓	✓	✓	✓	✓	✓	▲
	SP e-Lite 70X	✓	✓	✓	✓	✓	✓	✓	✓
Design	DS Bronze 20X	✓	✓	✓	✓	✓	✓	✓	✓
	DS Blue 35X	✓	✓	✓	✓	✓	✓	✓	▲
Clear Films	SF Clear 4/7 mil X	✓	✓	✓	✓	✓	✓	✓	✓
	Clear 4/6 mil poly X	✓	✓	✓	✓	✓	✓	✓	✓
Surface Protection	AG Clear 4/6 mil ix	✓	✓	✓	✓	✓	✓	✓	✓

Important restrictions and limitations on installation:

- It is the installer's responsibility to ensure that the film chosen is compatible with the glazing system.
- All film types can be applied to tempered glass, except for DS Black i and DS White i - see chart for limitations.
- Pane size: for glass with an edge dimension over 11.5 ft (3.5 m), and/or the surface of double pane glass has more than 40 sqft (3.7 sqm) surface area- use only on tempered glass.
- Pane thickness: clear glass > 3/8" (9.5 mm), tinted glass > 1/4" (6 mm) - use only on tempered glass unless given special approval otherwise.
- FTG chart refers to altitude up to 16400 ft (500 m). Above this altitude please consult with our technical support team. Altitude > 7000 ft (2310 m) - installation requires prior written approval from Avery Dennison (unless specifically specified, e.g. clear laminate).
- Installation on laminated glass requires prior written approval from Avery Dennison.
- Interior of skylights - installation requires prior written approval from Avery Dennison. These installations require sealing on all four edges.

Warranty is invalid if:

- Installation practices do not conform to Avery Dennison's published installation policies and procedures.
- Two or more films are applied to the same glass surface (with the exception of Avery Dennison Modular Film).
- Automotive film is applied to flat glass constructions.
- The filmed windows are triple or more pane construction, textured, wire film glass, or an IG unit inclusive of a suspended film, unless approved otherwise.
- Film is applied to any glass on which there is paint, lettering, signs, stickers or other permanent or temporary ornamentation (with the exception of small safety labels).
- Filmed glass has prior damage, is chipped, has cracked edges, has holes in it, or light is visible between the frame and the glass.
- Film is applied to non-glass substrates (unless specifically specified, i.e. Poly Films).
- Film is only partially applied to glass.
- Pane is shaded by exterior overhangs, extensions, columns, pillars etc.
- Glass is architecturally odd-shaped, and larger than 20 sqft (1.8 sqm).
- Damage is caused by acts of nature (accidents, floods, fire, explosion etc.).
- Avery Dennison XTRM films are installed by non-Avery Dennison Certified installers.



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