

### Avery Dennison<sup>®</sup> Architectural Window Films



graphics.averydennison.eu/architectural-window





# Avery Dennison<sup>®</sup> Architectural Window Films

Avery Dennison Architectural Window Films can improve the performance and transform the appearance of commercial, industrial and residential buildings.

Major glazing system enhancements are available for both interior and exterior use, including solar protection and window safety applications.



### **Solar** Window Films

The high performance Solar Window Films filter damaging solar radiation and reduces interior heat build up - providing multiple benefits to occupants such as enhanced comfort and reduced glare, no fading of furniture and lower energy cost.

With a comprehensive range of finishes available, the level of privacy can be selected and the appearance of the building transformed.

### Safety Window Films

The Safety Window Film range is designed to improve both safety and security, and offer a range of protection levels to glass breakages caused by accident, malicious intent or extreme weather conditions. Additional surface protection solutions are also available, with Anti-Graffiti properties.

Find a recommended product for a specific glazing systems using our Film to Glass (FTG) application charts available on our website. We provide you with full sales and technical support, to ensure the best possible application results.

### Reflective Interior



The Avery Dennison<sup>®</sup> R Silver i Film Series is designed for interior applications in buildings such as offices.

These metalized films provide maximum energy efficiency by rejecting excess solar radiation, reducing heat build-up from windows. A silver (mirror like) finish is available in three different light transmission levels.

#### **Fire Certificate**

DIN EN 13501-1 √ (B-s1, d0)

R Silver 20 i

R Silver 35 i

R Silver 50 i

UV block %	Visible light transmitted	Visible light reflected % (interior)	Visible light reflected % (exterior)	Total solar e rejected %
Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane
99 99	18 17	62 62	61 61	78 70
99 99	33 31	41 42	42 44	65 58
97 98	51 46	23 25	24 29	50 45

#### Key benefits

UV Block > Protects skin > Inhibits fading

#### Lower heat gain > Improves comfort

> Saves energy

#### Light control

- > Improves comfort
- > Reduces glare

#### Aesthetics



> Upgrades appearance > Ensures daytime privacy

### Reflective Exterior



The Avery Dennison<sup>®</sup> R Silver X Film Series is designed for exterior installation.

These films are especially energy efficient when used on advanced glazing systems, rejecting the solar energy before it is transmitted through a window. The Poly version is based on a unique adhesive system designed for rigid plastic substrates. Typical applications include commercial buildings. A silver (mirror like) finish is available in three different light transmission levels.

<b>Fire Certificate</b> <u>DIN EN 13501-1</u> √ (B-s1, d0)	UV block %	Visible light transmitted %	Visible light reflected % (interior)	Visible light reflected % (exterior)	Total solar energ rejected %
	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane
R Silver 20 X	99 99	17 16	62 62	62 62	81 85
DS Bronze 20 X	99 99	16 15	46 47	39 40	83 88
R Silver 35 X	99 99	33 31	42 44	42 43	66 72
R Silver 50 X	99 99	48 44	28 32	27 29	54 62
R Silver 20 X Poly	99	16	63	64	81

#### Key benefits



- > Protects skin
- > Inhibits fading



- > Improves comfort
- > Saves energy

#### Light control

- > Improves comfort
- > Reduces glare

#### Aesthetics > Upgrades appearance

> Ensures daytime privacy

### **Dual Reflective** Interior

The Avery Dennison® DR Grey i Film Series is designed for interior applications. A reflective outer layer ensures high solar energy rejection and privacy, while a neutral inner layer based on nanotechnology preserves views to the outside, maintaining indoor ambience.

Typical applications include hotels, banks and residential buildings. These films are available with a neutral grey interior finish and a reflective silver exterior finish, in two different light transmission levels.

#### **Fire Certificate**

DIN EN 13501-1

√ (B-s1, d0)

v (2 01, 00)	UV block %	Visible light transmitted %	Visible light reflected % (interior)	Visible light reflected % (exterior)	Total solar energy rejected %
	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane
DR Grey 05 i	99 99	7 7	18 18	59 60	82 71
DR Grey 15 i	99 99	12 11	25 26	56 57	80 70









> Reduces glare

#### Aesthetics

> Upgrades appearance

> Ensures daytime privacy

# **Dual Reflective** Exterior

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The Avery Dennison<sup>®</sup> DR Grey X Film Series is designed for exterior installation. A reflective outer layer ensures high solar energy rejection and privacy, while a neutral inner layer based on nanotechnology preserves views to the outside and maintains indoor ambience.

Typical applications include hotels, banks and residential buildings. These films are available with a neutral grey interior finish and a reflective silver exterior finish, in four different light transmission levels.

UV block %	Visible light transmitted %	Visible light reflected % (interior)	Visible light reflected % (exterior)	Total solar energy rejected %
Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane
99 99	8 7	17 23	55 55	83 88
99 99	19 18	14 21	34 35	69 77
99 99	36 32	14 21	22 23	57 65
99 99	53 48	19 25	18 21	49 58
	66 66 66 60 60 60 60 60 60 60 60 60 60 6	66668ingle PaneUV block %1000	Single PaneUV block %666666667272728666777281718171817181819191101	OV block %66668ingle PaneUV block %909090919191929266939394941095959596669798989899999090919192929394949495949695979498949894999499949494959495949694979497949694979496949794969497949694979496949794979496949794969497949694979496959794979497949694969597949694969497949694969596949694969496<

UV Block 



Key benefits

> Inhibits fading

#### Lower heat gain

- > Improves comfort
- > Saves energy

#### Light control

- > Improves comfort
- > Reduces glare

#### Aesthetics

> Upgrades appearance > Ensures daytime privacy



### **Spectrally Selective** Interior

The Avery Dennison<sup>®</sup> SS Natural i Film Series is designed for interior applications. Nanotechnology is used to filter undesired infrared radiation while allowing visible light to pass through and maintaining colour stability (hence the name 'spectrally selective').

These films are an excellent heat rejection upgrade, preserving the natural appearance of a building's interior and exterior, and are often used for historical buildings. They are available in two different light transmission levels.

**Fire Certificate** 

DIN EN 13501-1 √ (B-s1, d0)

SS Natural 45 i

SS Natural 70 i

UV block %	Visible light transmitted %	Visible light reflected % (interior)	Visible light reflected % (exterior)	Total solar energ
Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane
99 99	44 40	12 14	17 23	59 49
99 99	66 61	15 18	16 21	52 44

Key benefits

UV Block > Protects skin > Inhibits fading

Lower heat gain > Improves comfort

> Saves energy

Light control

> Improves comfort

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> Reduces glare

**Solar Spectrally Selective** 

### **Spectrally Selective** Exterior

The Avery Dennison<sup>®</sup> SS Natural X Film Series is designed for exterior applications. Nanotechnology is used to filter undesired infrared radiation while allowing visible light to pass through and maintaining colour stability (hence the name 'spectrally selective').

These films are an excellent heat rejection upgrade, preserving the natural appearance of a building's interior and exterior, and are often used for historical buildings. They are available in three different light transmission levels.

#### Fire Certificate

DIN EN 13501-1 √ (B-s1, d0)	UV block %	Visible light transmitted %	Visible light reflected % (interior)	Visible light reflected % (exterior)	Total solar energy rejected %
	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane	Single Pane Double Pane
SS Natural 45 X	99,9 99,9	47 43	12 19	17 19	61 69
SS Naural 70 X	99,9 99,9	67 61	17 23	18 22	53 61
SS Blue 75 X	99 99	76 69	9 17	9 15	46 57

#### Key benefits



- > Protects skin
- > Inhibits fading

Lower heat gain

- > Improves comfort
- > Saves energy

#### Light control

- > Improves comfort
- > Reduces glare

### Solar Specialty Interior



The Avery Dennison<sup>®</sup> DS i Film Series is designed for interior applications.

The DS Matte film has a translucent sandblasted appearance, ensuring both privacy enhancements and a design upgrade, whilst the DS UV filter option provides 100% UV block. Typically used in museums.

### Fire Certificate

DIN EN 13501-1 √ (B-s1, d0)

DS Matte i

DS UV Filter i

UV block %	Visible light transmitted %	Visible light reflected % (exterior)	Total solar energy rejected %
Single Pane	Single Pane	Single Pane	Single Pane
Double Pane	Double Pane	Double Pane	Double Pane
94 95	72 66	17 23	27 31
100 100	87 79	11 18	18 26

#### Key benefits

**UV Block**> Protects skin> Inhibits fading

#### Light control

> Improves comfort

> Reduces glare

#### Aesthetics

- > Upgrades appearance
- > Ensures daytime privacy



### Safety Clear Interior

The Avery Dennison® SF Clear i Film Series is designed for interior applications.

A full range of film thicknesses provides various protection levels from glass shattering caused by impact, blast, crime and natural disaster. These transparent films offer excellent clarity, low reflectance and high UV protection, and are available in four different thicknesses.

SF Clear 4 mil i

SF Clear 7 mil i

SF Clear 8 mil i

SF Clear 12 mil i

Key benefits

UV Block > Protects skin > Inhibits fading



Shard retention > Enhances personal safety

> Offers security protection

UV block %	Visible light transmitted %	Thickness in micron
Single Pane	Single Pane	
97	89	100
97 99	88	175
99	88	200
99	87	300

Safety Clear

### **Safety Clear** Exterior

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The Avery Dennison<sup>®</sup> SF Clear X Film Series is designed for exterior applications. It uses a durable, scratch resistant hard coating and an advanced adhesive system.

These exterior safety films provide an additional level of protection from the external side of the window, ensuring that glass shards do not injure passing pedestrians. The transparent films offer excellent clarity, low reflectance and high UV protection, and are available in two different thicknesses.

SF Clear 4 mil X

SF Clear 7 mil X

#### Key benefits



- > Protects skin
- > Inhibits fading

#### Shard retention

- > Enhances personal safety
- > Offers security protection

UV block %	Visible light transmitted %	Thickness in micron
Single Pane	Single Pane	
99 99	88 88	98 150

## **Surface Protection** PolyFilms Interior



Avery Dennison<sup>®</sup> PolyFilm i is a transparent film designed for interior applications. A unique adhesive allows application on plastic substrates such as polycarbonate or PMMA.

The special surface coating provides resistance to scratching, and enables easy cleaning of most sprays, paints and pens.

#### Key benefits



#### Anti-graffiti

- > Protects surface
- > Clean and easy removal



### **Surface Protection** PolyFilms Exterior

The Avery Dennison<sup>®</sup> PolyFilm X Series is designed for exterior applications. A unique adhesive allows application to plastic substrates such as polycarbonate or PMMA.

The special surface coating provides resistance to scratching, protects surface from acid and enables easy cleaning of most sprays, paints and pens. This film also protects plastic substrates against yellowing due to sun exposure and extends plastic lifespan. The transparent material is available in two different thicknesses.

Poly Clear 4 mil X

Poly Clear 6 mil X

#### Key benefits



- > Protects skin
- > Inhibits fading

#### Anti-graffiti

> Protects surface

> Clean and easy removal

UV block %	Visible light transmitted %	Thickness in micron
Single Pane	Single Pane	
99 99	88 88	98 150

### **Surface Protection** Anti-Graffiti



The Avery Dennison<sup>®</sup> AG Clear ix Film Series was designed for both interior and exterior applications.

A special hard surface coating provides resistance to scratching, protects glass from acid and allows easy cleaning of most sprays, paints and pens. Removing and replacing scratched or damaged film is fast and easy, thanks to a removable adhesive. These transparent films are available in two different thicknesses.

AG Clear 4 mil ix

AG Clear 6 mil ix

#### Key benefits



Anti-graffiti > Protects surface

> Clean and easy removal

UV block %	Visible light transmitted %	Thickness in micron
Single Pane	Single Pane	
93.68 99.90	90 88	100 150

## Safety Window Films Certificates

Product name	Fire		Impact		Bomb blast
TEST METHOD	DIN EN 13501-1 (B-s1, d0)	BS 6206	EN 12600	DIN EN 356	Bomb Blast GSA Level C
Clear Interior Fi	ilms				
SF Clear 4 Mil i	$\checkmark$	√ (B)	√ (2B2)		
SF Clear 7 Mil i			√ (2B2)		
SF Clear 8 Mil i			√ (1B1)		3B
SF Clear 12 Mil i				√ (P2A)	
Clear Exterior F	ilms				
SF Clear 4 Mil X	7		√ (2B2)		
SF Clear 7 Mil X			√ (1B1)		
Anti-Graffiti Uni	iversal Film				
AG Clear 4 mil ix	$\checkmark$				
AG Clear 6 mil ix					
PolyFilms					
Poly Clear 4 mil	√				
Poly Clear 4 mil X	$\checkmark$				
Poly Clear 6 mil X					



Other Architectural Solutions from Avery Dennison:

# Facade Film® for Building Renovation

Fast, clean and easy - residential and commercial redecoration projects

Restyling or redecorating residential, industrial or commercial buildings depends on a durable, conformable and easy to handle product. Singlelayer Avery Dennison Facade Film provides the high adhesion and simple application needed for difficult building substrates such as plastics, aluminium, uncoated/coated steel and reinforced facade panels.

- > Single layer construction
- > Good conformability
- > Up to 10 years durability
- > Custom Colour Matching for individual projects

Avery Dennison has been providing premium materials for building facades and door/window frames for more than 15 years. We can support projects in and around Europe, including custom project warranties for customers and end-users.

More information about Facade Film and Trainings 'how to apply can be found on our website www.graphics.averydennison.eu/facade

#### graphics.averydennison.eu/architectural-window



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