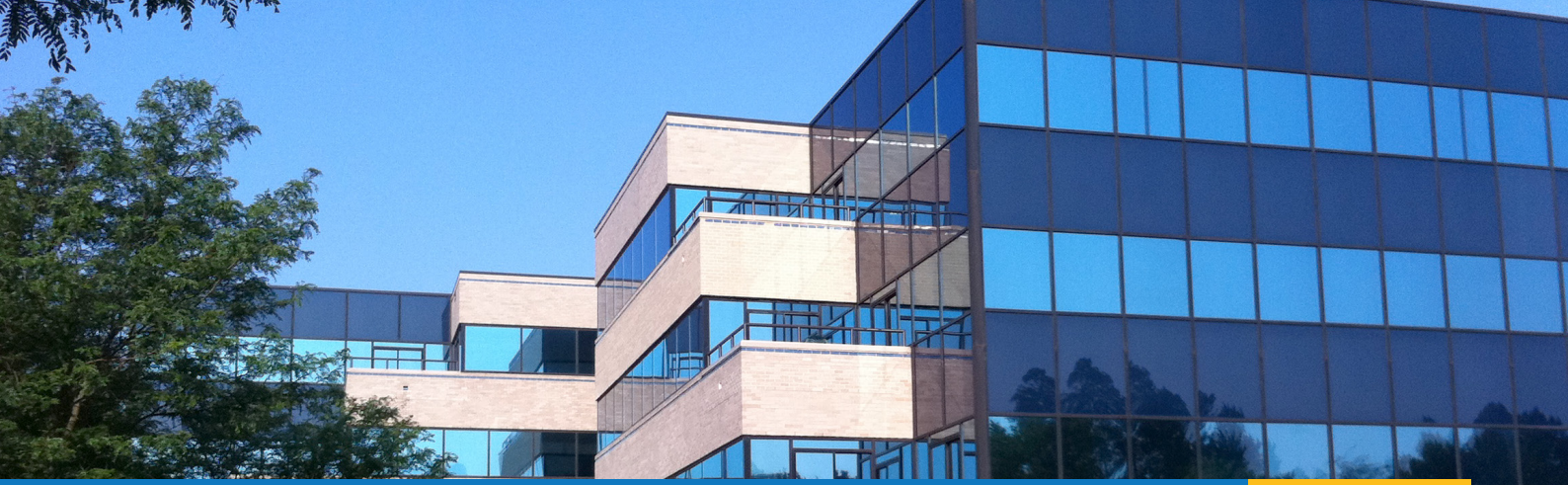


Dual Reflective Interior Films

Combining cooling performance with style

Solar

Avery Dennison's Dual Reflective interior window film lines - **DR OptiTune** and **DR OptiShade** - are engineered with nano technology for long lasting color stability and exceptional solar protection. These Dual Reflective films combine a stylish reflective outer layer that reduces glare and solar heat from entering into the room and thus maintains indoor comfort; with a less reflective inner layer that preserves views to the outside. All Dual Reflective films deliver excellent levels of solar protection.

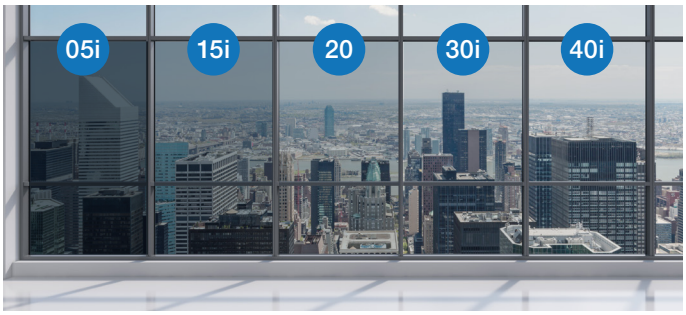
Dual Reflective interior films are ideal for commercial and residential retrofit glazing projects where increasing comfort, reducing hot spots and conserving energy are most important, all while maintaining a neutral interior view to the outside.

DR OptiTune i WA

DR OptiTune i Dual Reflective interior window film combines high solar heat rejection with low internal reflectance. Its attractive, warm neutral grey tone targets both residential and commercial use. **DR OptiTune 05i**, the film group's darkest version, functions as a one-way mirror for outstanding daytime privacy. **DR OptiTune i** is available in different VLT's.

Powered by NanoTechnology

This image has been simulated and is not actual product comparison



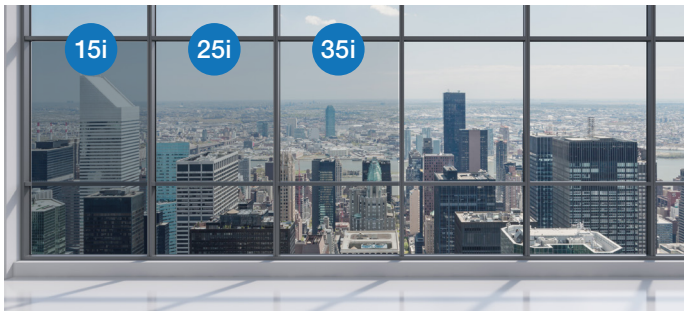
DR OptiTune 05i | DR OptiTune 15i | DR OptiTune 20i | DR OptiTune 30i | DR OptiTune 40i

DR OptiShade i WA

Avery Dennison's **DR OptiShade i** interior window film features a warm, neutral earth tone with low interior reflectance, and effective solar heat protection. It is ideal for residential use, complementing wood floors and furnishings. **DR OptiShade i** is available in different VLT's and is compatible with most glass glazing window systems.

Powered by NanoTechnology

This image has been simulated and is not actual product comparison



DR OptiShade 15i | DR OptiShade 25i | DR OptiShade 35i

Features and Benefits

- 99+% UV block reduces fading and damage from the sun
- Excellent level of heat rejection saves costs associated with building cooling
- Outstanding glare control for enhanced comfort
- Warm neutral interior with low reflectivity preserves ambiance and views
- Bold appearance upgrades building exterior and maintains daytime privacy

AVERY DENNISON | Graphics Solutions

UV Block | Lower heat gain | Light control | Aesthetics

Optical and Solar Properties**	DR OptiTune 05i		DR OptiTune 15i		DR OptiTune 20i		DR OptiTune 30i		DR OptiTune 40i	
Item Number	R070R0W		R070R1W		R069R2W		R069R3W		R069R4W	
Pane	Single	Double	Single	Double	Single	Double	Single	Double	Single	Double
Visible Light Transmitted	6%	6%	13%	13%	21%	19%	32%	30%	41%	38%
Visible Light Reflected (Interior)	15%	15%	25%	24%	15%	15%	26%	27%	18%	19%
Visible Light Reflected (Exterior)	63%	63%	56%	56%	32%	35%	32%	36%	21%	26%
Ultra Violet Block	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%
Total Solar Energy Reflected	56%	50%	51%	46%	31%	31%	32%	31%	22%	24%
Total Solar Energy Transmitted	6%	6%	12%	11%	18%	16%	25%	22%	33%	29%
Total Solar Energy Absorbed	38%	44%	37%	43%	51%	53%	43%	47%	45%	47%
Emissivity (Room Side)	0.75	0.75	0.76	0.76	0.80	0.80	0.81	0.81	0.83	0.83
Glare Reduction	93%	93%	85%	85%	77%	76%	63%	63%	54%	54%
Selective InfraRed Reduction (SIRR)	94%	94%	88%	88%	83%	83%	79%	79%	71%	79%
InfraRed Energy Rejection (IRER)	82%	82%	77%	77%	68%	68%	65%	65%	57%	65%
Shading Coefficient	0.19	0.31	0.26	0.37	0.38	0.51	0.44	0.53	0.54	0.62
Solar Heat Gain Coeff. (G-Value)	0.16	0.27	0.22	0.32	0.33	0.44	0.37	0.46	0.46	0.54
U-Value Winter (IP)	0.99	0.47	1.00	0.47	1.02	0.48	1.03	0.48	1.04	0.48
U-Value Winter (SI)	5.62	2.66	5.68	2.67	5.79	2.70	5.85	2.71	5.91	2.72
Luminous Efficacy	0.32	0.19	0.50	0.34	0.55	0.38	0.75	0.57	0.77	0.60
Total Solar Energy Rejected (%)	84%	73%	78%	68%	67%	56%	63%	54%	54%	46%

Optical and Solar Properties**	DR OptiShade 15i		DR OptiShade 25i		DR OptiShade 35i	
Item Number	R069O1W		R069O2W		R069O3W	
Pane	Single	Double	Single	Double	Single	Double
Visible Light Transmitted	16%	15%	27%	25%	35%	32%
Visible Light Reflected (Interior)	17%	17%	14%	14%	10%	11%
Visible Light Reflected (Exterior)	44%	46%	25%	30%	13%	20%
Ultra Violet Block	99%	99%	99%	99%	99%	99%
Total Solar Energy Reflected	42%	39%	26%	27%	14%	18%
Total Solar Energy Transmitted	13%	11%	23%	20%	34%	29%
Total Solar Energy Absorbed	45%	50%	51%	53%	53%	53%
Emissivity (Room Side)	0.79	0.79	0.84	0.84	0.86	0.86
Glare Reduction	82%	82%	70%	69%	61%	61%
Selective InfraRed Reduction (SIRR)	88%	88%	78%	78%	65%	65%
InfraRed Energy Rejection (IRER)	74%	74%	63%	63%	49%	49%
Shading Coefficient	0.31	0.43	0.44	0.56	0.58	0.67
Solar Heat Gain Coeff. (G-Value)	0.27	0.38	0.39	0.49	0.50	0.59
U-Value Winter (IP)	1.01	0.47	1.04	0.48	1.05	0.48
U-Value Winter (SI)	5.76	2.69	5.91	2.73	5.97	2.75
Luminous Efficacy	0.52	0.34	0.61	0.45	0.60	0.47
Total Solar Energy Rejected (%)	73%	62%	61%	51%	50%	41%

S92545 05/2018

** Performance results are calculated on 3 mm glass using NFRC methodology and LBNL Window 5.2 software, and are subject to variations in process conditions within industry standards and are only intended for estimating purposes.

About Avery Dennison

Avery Dennison (NYSE: AVY) is a global materials science and manufacturing company specializing in the design and manufacture of a wide variety of labeling and functional materials. Headquartered in Glendale, California, the company employs approximately 30,000 employees in more than 50 countries. Reported sales in 2017 were $ 6.6 billion. Learn more at www.averydennison.com