Dual Reflective Films

Combining energy efficiency with style

The SolarZone Dual Reflective product lines — OptiTune and Titan — combine a reflective outer layer for high solar energy rejection with a less reflective inner layer to preserve the view outside and maintain indoor ambiance. OptiTune and Titan deliver high levels of protection from solar heat. They cut energy costs by reducing the need for air conditioning and boosting energy efficiency.

Dual Reflective films are ideal for commercial and residential energy-upgrade glazing projects when the customer wants quick payback but wants a neutral interior that preserves the view outside.

OptiTune

WA

SolarZone Safe

OptiTune combines high solar energy rejection with low internal reflectance. Its warm neutral interior is ideal for residential and commercial installations.

- 05 — 5% VLT
- 15 — 15% VLT
- 22 — 22% VLT
- 30 — 30% VLT
- 40 — 40% VLT
- 55 — 55% VLT

Titan

PS

Titan neutral grey films give high performance and added value. Both Titan Duo (Interior) and Titan Xtra (Exterior) combine privacy with excellent interior visibility both day and night, cutting glare by up to 92%.

Extremely energy efficient, Titan Xtra provides excellent solar heat rejection and rapid payback. In fact, Titan Xtra 07 is the best energy saver in the SolarZone line, and it suits even the most sophisticated glazing systems.

- 05 — 5% VLT (interior)
- 15 — 15% VLT (interior)
- 07x — 7% VLT (exterior)
- 20x — 20% VLT (exterior)
- 30x — 30% VLT (exterior)
- 50x — 50% VLT (exterior)

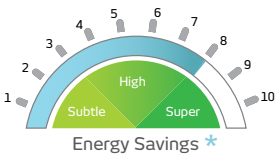
Dual Reflective Films provide

- **High levels of heat rejection** cuts energy costs by reducing consumption and peak load
- **Outstanding glare control** for enhanced comfort
- **Warm neutral interior with low reflectivity** preserves ambiance and views
- **99+% UV block** limits fading and damage from the sun
- **Bold appearance** upgrades building exterior and maintains daytime privacy

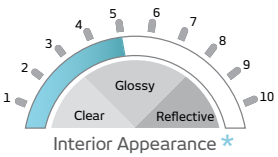
Optical and solar properties**	OptiTune 05 WA	OptiTune 15 WA	OptiTune 22 WA	OptiTune 30 WA	OptiTune 40 WA	OptiTune 55 WA
Item Number	R070R0W	R070R1W	R069R2W	R069R3W	R069R4W	R069R5W
Visible light transmitted (%)	6	13	21	32	41	58
Visible light reflected (interior) (%)	15	25	15	26	18	11
Visible light reflected (exterior) (%)	63	56	32	32	21	12
Ultraviolet block (%)	99	99	99	99	99	99
Total solar energy reflected (%)	56	51	31	32	22	12
Total solar energy transmitted (%)	6	12	18	25	33	51
Total solar energy absorbed (%)	38	37	51	43	45	37
Glare reduction (%)	93	85	77	63	54	33
Shading coefficient	0.19	0.26	0.38	0.44	0.54	0.71
Solar heat gain coeff. (G-value)	0.16	0.22	0.33	0.37	0.46	0.61
Winter U-value (IP) BTU/(hr$\times$°F$\times$ft^2)	0.99	1.00	1.02	1.03	1.04	1.06
Winter U-value (SI) W/(°K$\times$m^2)	5.62	5.68	5.79	5.85	5.91	6.02
Emissivity	0.75	0.76	0.80	0.81	0.83	0.87
Total solar energy rejected (%)	**84**	**78**	**67**	**63**	**54**	**39**

Optical and solar properties**	Titan 07 Xtra (Ext)	Titan 20 Xtra(Ext)	Titan 35 Xtra (Ext)	Titan 50 Xtra (Ext)	Titan Duo 05 (Int)	Titan Duo 15 (Int)
Item Number	R070W0X	R070W6X	R070W5X	R070W3X	R058W0S	R058W1S
Visible light transmitted (%)	8	19	36	52	7	12
Visible light reflected (interior) (%)	17	14	14	19	18	25
Visible light reflected (exterior) (%)	55	34	22	18	59	56
Ultraviolet block (%)	99.9	99.9	99.9	99.9	99	99 [3]
Total solar energy reflected (%)	58	37	26	22	53	51
Total solar energy transmitted (%)	7	18	31	40	7	9
Total solar energy absorbed (%)	35	45	43	38	40	40
Glare reduction (%)	91	79	61	41	92	87
Shading coefficient	0.20	0.36	0.50	0.59	0.18	0.20
Solar heat gain coeff. (G-value)	0.17	0.31	0.43	0.51	0.78	0.78
Winter U-value (IP) BTU/(hr$\times$°F$\times$ft^2)	1.04	1.04	1.04	1.04	1.01	1.01
Winter U-value (SI) W/(°K$\times$m^2)	5.91	5.91	5.91	5.91	5.73	5.73
Emissivity	0.84	0.84	0.84	0.84	0.78	0.78
Total solar energy rejected (%)	**83**	**69**	**57**	**49**	**82**	**80**

**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.



Energy Savings *



Interior Appearance *

* Comparative scale, at similar levels of light transmission, and with reflective films as benchmark

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