

# Dual Reflective Helios Dark Neutral

VHE14 ER HPR



## Performance Data

Technical data according To EN 410 and EN 673*	4 mm single	4/16/4 mm double
Solar Energy Transmission, $\tau_e$	7%	6%
Solar Energy Reflection, $\rho_e$	59%	
Solar Energy Absorption, $\alpha_e$	34%	35%
Visible Light Transmission, $\tau_v$	9%	8%
Visible Light Reflection (External), $\rho_{ve}$	61%	
Visible Light Reflection (Internal), $\rho_{vi}$	24%	28%
Ultraviolet Transmission, $\tau_{UV}$	< 0.1 %	
Ultraviolet Rejection	> 99.9 %	
g value	0,15	0,1
Shading Coefficient	0,17	0,11
Total Solar Energy Rejected	85%	90%
Glare Reduction	90%	91%
U value, single glazing (W/m <sup>2</sup> .K)	5,7	
U value, double glazing, Air filled (W/m <sup>2</sup> .K)		2,7
Emissivity, $\epsilon_n$	0,87	
Thickness without liner	64 $\mu$	
Film Colour / Appearance	Neutral Reflective	
Installation position	Exterior	
Warranty: 10 years vertical / 5 years sloping**		

Installation Notes: Edge sealing required. Use Film On for installation.

\* Please check the complete Film to Glass Thermal Stress Compatibility Guidelines before film installation; Corrected emissivity of uncoated glass surface: 0.837.

\*\* Contact Eastman Performance Films for full details. All values for engineering parameters are determined by the manufacturer and independent testing laboratories.

Datasheet created on 04/08/2015. For a more recent version please contact your LLumar representative.

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## Features & Benefits

- Solar control and privacy film – dual reflective: The ultimate solution for buildings which have high solar heat gain and high cooling costs and where privacy is needed
- Neutral solar control and privacy exterior grade film
- Special technology polymeric scratch resistant coating provides increased durability and easier cleaning – patent applied for
- Superior one way privacy – better than competitors including mirror-glass: Low reflection towards the interior allows improved vision to the outside whilst preserving privacy
- Significant improvement of working conditions – high reduction in solar heat gain
- Reduction in air-conditioning costs and hence a reduction in energy costs with potential payback of less than 3 years
- Potential to reduce CO2 emissions by tens of tonnes per year
- Excellent glare reduction for reduced eyestrain and easier working with computer screens
- Excellent anti-UV protection integral to the polyester helps to reduce fading of textiles, furniture, and works of art
- Extremely well adapted to single, double and double low-E insulating glazing systems
- Exterior installation