

EMF 4426

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 74% |
| Visible Light Transmitted | 7% |
| Visible Light Reflected (External) | 13% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.30 |
| SHGC | 0.26 |
| U-Value - (W/m ² K) | 5.22 |
| Glare Reduction | 92% |
| Solar Energy Reflected | 30% |
| Solar Energy Absorbed | 61% |
| Estimated Fade Reduction* | 81% |

Benefits:

- Popular for use on commercial buildings with clear glass.
- Gives attractive deep grey appearance externally.
- Stops 74% of heat.
- Helps reduce heat loss in winter.
- Reduces energy costs all year round.
- Designed for areas with severe glare problem.
- Ideal for computer rooms.
- Excellent daytime privacy.
- Strengthens glass for added safety.
- Over 98% of harmful UV rejected.
- Excellent fade reduction.
- World's toughest scratch resistant surface.
- Clear distortion free adhesive.
- 7 year warranty - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

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EMF 4437

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 79% |
| Visible Light Transmitted | 15% |
| Visible Light Reflected (External) | 60% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.25 |
| SHGC | 0.21 |
| U-Value - (W/m ² K) | 5.28 |
| Glare Reduction | 83% |
| Solar Energy Reflected | 55% |
| Solar Energy Absorbed | 33% |
| Estimated Fade Reduction* | 80% |

Benefits:

- W.E.R.S. Rating 5 Stars (cooling).
- Ideal for use on commercial and domestic buildings with coloured glass.
- Biggest selling film in the world.
- Highest solar heat rejection 79%.
- Helps reduce heat loss in winter.
- Reduces energy costs all year round.
- Excellent daytime privacy.
- Dramatically reduces glare. Ideal for computer areas.
- Strengthens glass for added safety.
- Over 98% of harmful UV rejected.
- Excellent fade reduction.
- World's toughest scratch resistant surface.
- Clear distortion free adhesive.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

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EMF 4437EX

Solar Control Series - External

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 80% |
| Visible Light Transmitted | 16% |
| Visible Light Reflected (External) | 62% |
| Ultra Violet Rejected | >99% |
| Shading Coefficient | 0.22 |
| SHGC | 0.20 |
| U-Value - (W/m ² K) | 5.91 |
| Glare Reduction | 82% |
| Solar Energy Reflected | 63% |
| Solar Energy Absorbed | 25% |
| Estimated Fade Reduction* | 82% |

Benefits:

- Hybrid Polymer construction with multiple interlocking layers – for extended durability. Note: accelerated weathering tests have shown that the OUTSIDER-exterior solar film, films, have lasted 3 times longer than standard exterior film technologies.
- Up to 83% of solar heat rejected.
- Improvement in working conditions.
- Significant reduction of glare.
- 99%+ reduction of damaging UV rays.
- Patent-pending non-stick coating.
- Increased durability and easier cleaning.
- The hard coated surface is approximately 4 times harder than Kynar coated films resulting in a surface that will not scratch as readily as many other exterior-applied window films.
- Well adapted for installation to single, double glazed and double glazed low-E insulating units.
- Daylight privacy (one-way-mirror) achievable under correct lighting conditions.
- Reduction of CO₂ for the lifetime of the product – potentially tens of thousands of tonnes per year.
- Carbon neutral after 2 months from installation.
- More economical and with little CO₂ impact, compared to a glazing system replacement.
- Carbon neutral 'offset' 2 months from installation.
- Carbon footprint is up to 70 to 115 less than the carbon footprint made when manufacturing aluminium, pvc, glass or wood.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

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EMF 4450EX

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 52% |
| Visible Light Transmitted | 49% |
| Visible Light Reflected (External) | 26% |
| Ultra Violet Rejected | >99% |
| Shading Coefficient | 0.55 |
| SHGC | 0.48 |
| U-Value – (W/m ² K) | 5.91 |
| Glare Reduction | 46% |
| Solar Energy Reflected | 30% |
| Solar Energy Absorbed | 32% |
| Estimated Fade Reduction* | - |

Benefits:

- Hybrid Polymer construction with multiple interlocking layers – for extended durability.
Note: accelerated weathering tests have shown that the OUTSIDER-exterior solar film, films, have lasted 3 times longer than standard exterior film technologies.
- Up to 83% of solar heat rejected.
- Improvement in working conditions.
- Significant reduction of glare.
- 99%+ reduction of damaging UV rays.
- Patent-pending non-stick coating.
- Increased durability and easier cleaning.
- The hard coated surface is approximately 4 times harder than Kynar coated films resulting in a surface that will not scratch as readily as many other exterior-applied window films.
- Well adapted for installation to single, double glazed and double glazed low-E insulating units.
- Daylight privacy (one-way-mirror) achievable under correct lighting conditions.
- Reduction of CO₂ for the lifetime of the product – potentially tens of thousands of tonnes per year.
- Carbon neutral after 2 months from installation.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

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EMF 4540EX

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 70% |
| Visible Light Transmitted | 29% |
| Visible Light Reflected (External) | 48% |
| Ultra Violet Rejected | >99% |
| Shading Coefficient | 0.35 |
| SHGC | 0.35 |
| U-Value – (W/m ² K) | 5.91 |
| Glare Reduction | 68% |
| Solar Energy Reflected | 50% |
| Solar Energy Absorbed | 29% |
| Estimated Fade Reduction* | - |

Benefits:

- W.E.R.S. Rating 5 Stars (cooling).
- Hybrid Polymer construction with multiple interlocking layers – for extended durability.
Note: accelerated weathering tests have shown that the OUTSIDER-exterior solar film, films, have lasted 3 times longer than standard exterior film technologies.
- Up to 70% of solar heat rejected.
- Improvement in working conditions.
- Significant reduction of glare.
- 99%+ reduction of damaging UV rays.
- Patent-pending non-stick coating.
- Increased durability and easier cleaning.
- The hard coated surface is approximately 4 times harder than Kynar coated films resulting in a surface that will not scratch as readily as many other exterior-applied window films.
- Well adapted for installation to single, double glazed and double glazed low-E insulating units.
- Daylight privacy (one-way-mirror) achievable under correct lighting conditions.
- Reduction of CO₂ for the lifetime of the product – potentially tens of thousands of tonnes per year.
- Carbon neutral after 2 months from installation.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

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EMF 5310

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 53% |
| Visible Light Transmitted | 40% |
| Visible Light Reflected (External) | 18% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.53 |
| SHGC | 0.47 |
| U-Value - (W/m ² K) | 5.68 |
| Glare Reduction | 55% |
| Solar Energy Reflected | 14% |
| Solar Energy Absorbed | 52% |
| Estimated Fade Reduction* | 67% |

Benefits:

- W.E.R.S. Rating 2.5 Stars (cooling)/0.5 star (heating).
- Ideal for commercial buildings on clear glass.
- Advanced sputtering technology.
- Popular film for homes.
- Only stabilised metals used in production.
- Original colour guaranteed to last.
- Rejects 53% of heat.
- Provides daytime privacy.
- Good glare reduction.
- Strengthens glass for added safety.
- Over 98% of harmful UV rejected.
- Very good fade reduction.
- World's toughest scratch resistant surface.
- Clear distortion free adhesive.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

EMF 5310EX

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 51% |
| Visible Light Transmitted | 38% |
| Visible Light Reflected (External) | 19% |
| Ultra Violet Rejected | >99% |
| Shading Coefficient | 0.56 |
| SHGC | 0.49 |
| U-Value - (W/m ² K) | 5.91 |
| Glare Reduction | 58% |
| Solar Energy Reflected | 18% |
| Solar Energy Absorbed | 48% |
| Estimated Fade Reduction* | - |

Benefits:

- W.E.R.S. Rating 2.5 Stars (cooling)/0.5 star (heating).
- Hybrid Polymer construction with multiple interlocking layers – for extended durability.
Note: accelerated weathering tests have shown that the OUTSIDER-exterior solar film, films, have lasted 3 times longer than standard exterior film technologies.
- Up to 83% of solar heat rejected.
- Improvement in working conditions.
- Significant reduction of glare.
- 99%+ reduction of damaging UV rays.
- Patent-pending non-stick coating.
- Increased durability and easier cleaning.
- The hard coated surface is approximately 4 times harder than Kynar coated films resulting in a surface that will not scratch as readily as many other exterior-applied window films.
- Well adapted for installation to single, double glazed and double glazed low-E insulating units.
- Daylight privacy (one-way-mirror) achievable under correct lighting conditions.
- Reduction of CO₂ for the lifetime of the product – potentially tens of thousands of tonnes per year.
- Carbon neutral after 2 months from installation.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

EMF 5343

Solar Control Series

Performance Data:

| | |
|------------------------------------|-------|
| Total Solar Energy Rejected (Heat) | 63% |
| Visible Light Transmitted | 24% |
| Visible Light Reflected (External) | 28% |
| Ultra Violet Rejected | > 98% |
| Shading Coefficient | 0.42 |
| SHGC | 0.37 |
| U-Value - (W/m ² K) | 5.68 |
| Glare Reduction | 73% |
| Solar Energy Reflected | 26% |
| Solar Energy Absorbed | 52% |
| Estimated Fade Reduction* | 74% |

Benefits:

- Ideal for commercial buildings on clear glass.
- Advanced sputtering technology.
- Only stabilised metals used in production.
- Original colour guaranteed to last.
- Rejects 63% of heat.
- Provides daytime privacy.
- Good glare reduction.
- Strengthens glass for added safety.
- Over 98% of harmful UV rejected.
- Very good fade reduction.
- World's toughest scratch resistant surface.
- Clear distortion free adhesive.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

EMF 5343EX

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 64% |
| Visible Light Transmitted | 23% |
| Visible Light Reflected (External) | 30% |
| Ultra Violet Rejected | >99% |
| Shading Coefficient | 0.42 |
| SHGC | 0.36 |
| U-Value – (W/m ² K) | 5.91 |
| Glare Reduction | 74% |
| Solar Energy Reflected | 29% |
| Solar Energy Absorbed | 50% |
| Estimated Fade Reduction* | - |

Benefits:

- Hybrid Polymer construction with multiple interlocking layers – for extended durability.
Note: accelerated weathering tests have shown that the OUTSIDER-exterior solar film, films, have lasted 3 times longer than standard exterior film technologies.
- Up to 83% of solar heat rejected.
- Improvement in working conditions.
- Significant reduction of glare.
- 99%+ reduction of damaging UV rays.
- Patent-pending non-stick coating.
- Increased durability and easier cleaning.
- The hard coated surface is approximately 4 times harder than Kynar coated films resulting in a surface that will not scratch as readily as many other exterior-applied window films.
- Well adapted for installation to single, double glazed and double glazed low-E insulating units.
- Daylight privacy (one-way-mirror) achievable under correct lighting conditions.
- Reduction of CO₂ for the lifetime of the product – potentially tens of thousands of tonnes per year.
- Carbon neutral after 2 months from installation.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

EMF 5354

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 77% |
| Visible Light Transmitted | 19% |
| Visible Light Reflected (External) | 38% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.28 |
| SHGC | 0.23 |
| U-Value - (W/m ² K) | 5.28 |
| Glare Reduction | 78% |
| Solar Energy Reflected | 48% |
| Solar Energy Absorbed | 39% |
| Estimated Fade Reduction* | 79% |

Benefits:

- Ideal for commercial buildings on clear glass.
- Advanced sputtering technology.
- Only stabilised metals used in production.
- Original colour guaranteed to last.
- Rejects 77% of heat.
- Reduces energy costs all year round.
- Provides daytime privacy.
- Good glare reduction.
- Strengthens glass for added safety.
- Over 98% of harmful UV rejected.
- Excellent fade reduction.
- World's toughest scratch resistant surface.
- Clear distortion free adhesive.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

EMF 5365

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 44% |
| Visible Light Transmitted | 48% |
| Visible Light Reflected (External) | 13% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.64 |
| SHGC | 0.56 |
| U-Value - (W/m ² K) | 5.68 |
| Glare Reduction | 45% |
| Solar Energy Reflected | 12% |
| Solar Energy Absorbed | 40% |
| Estimated Fade Reduction* | 63% |

Benefits:

- W.E.R.S. Rating 2 Stars (cooling)/0.5 (heating).
- Ideal for commercial and residential application.
- Advanced sputtering technology.
- Only stabilised metals used in production.
- Original colour guaranteed to last.
- Rejects 44% of heat.
- Glare reduction.
- Strengthens glass for added safety.
- Over 98% of harmful UV rejected.
- Good fade reduction.
- World's toughest scratch resistant surface.
- Clear distortion free adhesive.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

Note: It is the sellers/installers responsibility to determine application & 'duty of care' requirements as required by building standards.

EMF 5387

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 31% |
| Visible Light Transmitted | 63% |
| Visible Light Reflected (External) | 11% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.80 |
| SHGC | 0.69 |
| U-Value - (W/m ² K) | 5.68 |
| Glare Reduction | 28% |
| Solar Energy Reflected | 9% |
| Solar Energy Absorbed | 30% |
| Estimated Fade Reduction* | 56% |

Benefits:

- Ideal for shop fronts and residential use.
- Advanced sputtering technology.
- Only stabilised metals used in production.
- Clear appearance makes it ideal for display windows.
- Good choice for use on coloured glass.
- Stops 31% of heat.
- Strengthens glass for added safety.
- Over 98% of harmful UV rejected.
- World's toughest scratch resistant surface.
- Clear distortion free adhesive.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

EMF 8154

Solar Control Series

Performance Data:

| | |
|------------------------------------|-------|
| Total Solar Energy Rejected (Heat) | 73% |
| Visible Light Transmitted | 6% |
| Visible Light Reflected (External) | 13% |
| Ultra Violet Rejected | > 99% |
| Shading Coefficient | 0.31 |
| SHGC | 0.27 |
| U-Value - (W/m ² K) | 5.70 |
| Glare Reduction | 93% |
| Solar Energy Reflected | 20% |
| Solar Energy Absorbed | 68% |
| Estimated Fade Reduction* | 81% |

Benefits:

- W.E.R.S. Rating 3 Stars (cooling).
- Popular for use on commercial buildings with clear glass.
- Gives attractive deep grey appearance externally.
- Stops 73% of heat.
- Reduces energy costs all year round.
- Designed for areas with severe glare problems. Ideal for computer rooms.
- Excellent daytime privacy.
- Strengthens glass for added safety.
- Over 99% of harmful UV rejected.
- Excellent fade reduction.
- World's toughest scratch resistant coating.
- Clear distortion free adhesive.
- Lifetime warranty residential - not transferable.
- 12 year warranty residential - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

EMF 8132

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 62% |
| Visible Light Transmitted | 16% |
| Visible Light Reflected (External) | 12% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.43 |
| SHGC | 0.38 |
| U-Value - (W/m ² K) | 5.70 |
| Glare Reduction | 82% |
| Solar Energy Reflected | 11% |
| Solar Energy Absorbed | 69% |
| Estimated Fade Reduction* | 76% |

Benefits:

- W.E.R.S rating 3.5 stars (cooling).
- Ideal for computer rooms.
- Excellent for use on windows with a view.
- Provides daytime privacy.
- Gives attractive low sheen grey appearance externally and internally.
- Very low internal reflection day or night.
- Stops 62% of heat.
- Reduces energy costs all year round.
- Excellent glare reduction.
- Strengthens glass for added safety.
- Over 98% of harmful UV rejected.
- Very good fade reduction.
- World's toughest scratch resistant surface.
- Clear distortion free adhesive.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

EMF 8143

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 56% |
| Visible Light Transmitted | 27% |
| Visible Light Reflected (External) | 13% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.50 |
| SHGC | 0.44 |
| U-Value - (W/m ² K) | 5.80 |
| Glare Reduction | 69% |
| Solar Energy Reflected | 11% |
| Solar Energy Absorbed | 60% |
| Estimated Fade Reduction* | 71% |

Benefits:

- W.E.R.S rating 2.5 stars (cooling).
- Excellent for use on windows with a view.
- Gives attractive low sheen grey appearance externally and internally.
- Very low internal reflection day or night.
- Stops 56% of heat.
- Reduces energy costs all year round.
- Gives good daytime privacy.
- Excellent glare reduction.
- Strengthens glass for added safety.
- Over 98% of harmful UV rejected.
- Good fade reduction.
- World's toughest scratch resistant surface.
- Clear distortion free adhesive.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

EMF 1254

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 78% |
| Visible Light Transmitted | 12% |
| Visible Light Reflected (External) | 54% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.25 |
| SHGC | 0.22 |
| U-Value - (W/m ² K) | 5.84 |
| Glare Reduction | 86% |
| Solar Energy Reflected | 50% |
| Solar Energy Absorbed | 40% |
| Estimated Fade Reduction* | 81% |

Benefits:

- Reduces 78% heat.
- Reduces air conditioning running costs.
- Ideal for use on commercial buildings.
- Low reflective exterior - grey colour.
- Reduces glare by 87%.
- Manufacturer guarantees colour long lasting.
- Blocks out over 98% of ultra violet.
- Ideal for many internal one way vision situations.
- Excellent for daytime privacy.
- Almost 80% fade control.
- World's toughest scratch resistant surface.
- Clear distortion free adhesive
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

EMF 1221

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 65% |
| Visible Light Transmitted | 27% |
| Visible Light Reflected (External) | 34% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.39 |
| SHGC | 0.35 |
| U-Value - (W/m ² K) | 5.84 |
| Glare Reduction | 69% |
| Solar Energy Reflected | 33% |
| Solar Energy Absorbed | 45% |
| Estimated Fade Reduction* | 74% |

Benefits:

- W.E.R.S. Rating 3.5 Stars (cooling).
- Popular for use on commercial buildings.
- Advanced sputtering technology.
- Only stabilised metals used in production.
- Manufactured guarantees colour long lasting.
- Designed to work under extreme heat conditions.
- Reduces 65% heat.
- Reduces energy costs all year round.
- Provides daytime privacy.
- Good glare and fade reduction.
- Strengthens glass for added safety.
- Over 98% of harmful UV rejected.
- World's toughest scratch resistant surface.
- Neutral interior appearance.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

EMF 1232

Solar Control Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 56% |
| Visible Light Transmitted | 37% |
| Visible Light Reflected (External) | 27% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.50 |
| SHGC | 0.44 |
| U-Value - (W/m ² K) | 5.79 |
| Glare Reduction | 58% |
| Solar Energy Reflected | 25% |
| Solar Energy Absorbed | 44% |
| Estimated Fade Reduction* | 69% |

Benefits:

- Popular for use on commercial buildings with clear laminated glass.
- Advances sputtering technology.
- Only stabilised metals used in production.
- Manufacturer guarantees colour long lasting.
- 56% heat rejection.
- Reduces energy costs all year round.
- Provides daytime privacy.
- Good glare reduction.
- Strengthens glass for added safety.
- Over 98% of harmful UV rejected.
- Good fade reduction.
- World's toughest scratch resistant surface.
- Clear distortion free adhesive.
- Neutral interior appearance.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

DC 2645

Safety Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 14% |
| Visible Light Transmitted | 87% |
| Visible Light Reflected (External) | 9% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.94 |
| SHGC | 0.86 |
| U-Value - (W/m ² K) | 5.80 |
| Glare Reduction | 0% |
| Solar Energy Reflected | 7% |
| Solar Energy Absorbed | 7% |
| Estimated Fade Reduction* | 46% |

Benefits:

- Most popular where glass strengthening is required without visible appearance of film having been applied.
- Clear appearance makes it ideal for display windows.
- Almost three times thicker than normal film, increasing strength and safety features (100 microns).
- Over 98% of harmful UV rejected.
- World's toughest scratch resistant surface.
- 4.5kg (10lb) pressure sensitive mounting adhesive.
- Puncture strength 79 pounds force.
- Manufactured to comply with Safety Glazing Standard AS/NZS2208 when applied to 3mm glass or thicker.
- Ideal for glass upgrades.
- 3 year warranty residential - not transferable.
- 3 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

Note: It is the sellers/installers responsibility to determine application & 'duty of care' requirements as required by building standards.

DC 4000

Anti-graffiti Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 14% |
| Visible Light Transmitted | 87% |
| Visible Light Reflected (External) | 9% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.94 |
| SHGC | 0.86 |
| U-Value - (W/m ² K) | 5.80 |
| Glare Reduction | 0% |
| Solar Energy Reflected | 7% |
| Solar Energy Absorbed | 7% |
| Estimated Fade Reduction* | 46% |

Benefits:

- Ideal for long term protection against the scratching of external glass surfaces facing pedestrian traffic areas, such as; display windows, advertising signage, advertising displays, etc.
- Low cost alternative to glass replacement due to scratching.
- Almost three times thicker than normal film, increasing strength and safety features. (100microns).
- Over 98% of harmful UV rejected.
- Patented "external" pressure sensitive adhesive.
- Patented "external" scratch resistant coating.
- 4.5kg (10lb) pressure sensitive mounting adhesive.
- Puncture strength 79 pounds force.
- Strengthens glass for added safety.
- 3 year warranty residential - not transferable.
- 3 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

Note: It is the sellers/installers responsibility to determine application & 'duty of care' requirements as required by building standards.

DC 2667

Safety Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 79% |
| Visible Light Transmitted | 15% |
| Visible Light Reflected (External) | 60% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.25 |
| SHGC | 0.21 |
| U-Value - (W/m ² K) | 5.80 |
| Glare Reduction | 83% |
| Solar Energy Reflected | 55% |
| Solar Energy Absorbed | 33% |
| Estimated Fade Reduction* | 80% |

Benefits:

- W.E.R.S. Rating 5 Stars (cooling).
- Ideal where glass strengthening and high heat reduction are required.
- Perfect for use on commercial and domestic buildings with coloured glass.
- Manufactured to comply with Safety Glazing Standard AS/NZS2208 when applied to 3mm glass and above.
- Almost three times thicker than normal film, increasing strength and safety features (100 microns).
- Stops 79% of heat.
- Helps reduce heat loss in winter.
- Reduces energy costs all year round.
- Over 98% of harmful UV rejected.
- Excellent fade reduction.
- World's toughest scratch resistant surface.
- 4.5kg (10lb) pressure sensitive mounting adhesive.
- Puncture strength 78 pounds force.
- Ideal for glass upgrades.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

Note: It is the sellers/installers responsibility to determine application & 'duty of care' requirements as required by building standards.

DC 2612

Safety Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 53% |
| Visible Light Transmitted | 40% |
| Visible Light Reflected (External) | 18% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.53 |
| SHGC | 0.47 |
| U-Value - (W/m ² K) | 5.68 |
| Glare Reduction | 55% |
| Solar Energy Reflected | 14% |
| Solar Energy Absorbed | 52% |
| Estimated Fade Reduction* | 67% |

Benefits:

- W.E.R.S. Rating 2.5 Stars (cooling)/0.5 stars (heating).
- Advanced sputtering technology.
- Only stabilised metals used.
- Manufactured to comply with Safety Glazing Standard AS/NZS2208 when applied to 3mm glass and above.
- Almost three times thicker than normal film, increasing strength and safety features (100 microns).
- Original colour guaranteed to be long lasting.
- Ideal where glass strengthening and good heat reduction are required.
- Stops over 53% of heat.
- Over 98% of harmful UV rejected.
- Good glare and fade reduction.
- 4.5kg (10lb) pressure sensitive mounting adhesive.
- Puncture strength 78 pounds force.
- Ideal for glass upgrades.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

Note: It is the sellers/installers responsibility to determine application & 'duty of care' requirements as required by building standards.

DC 2623

Safety Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 44% |
| Visible Light Transmitted | 48% |
| Visible Light Reflected (External) | 13% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.64 |
| SHGC | 0.56 |
| U-Value - (W/m ² K) | 5.68 |
| Glare Reduction | 45% |
| Solar Energy Reflected | 12% |
| Solar Energy Absorbed | 40% |
| Estimated Fade Reduction* | 63% |

Benefits:

- W.E.R.S. Rating 2 Stars (cooling)/0.5 stars (heating).
- Advanced sputtering technology.
- Only stabilised metals used.
- Manufactured to comply with Safety Glazing Standard AS/NZS2208 when applied to 3mm glass and above.
- Almost three times thicker than normal film, increasing strength and safety features.
- Original colour guaranteed to be long lasting.
- Ideal where glass strengthening and good heat reduction are required.
- Stops 44% of heat.
- Over 98% of harmful UV rejected.
- 4.5kg (10lb) pressure sensitive mounting adhesive.
- Puncture strength 78 pounds force.
- Ideal for glass upgrades.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

Note: It is the sellers/installers responsibility to determine application & 'duty of care' requirements as required by building standards.

DC 2689

Safety Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 14% |
| Visible Light Transmitted | 87% |
| Visible Light Reflected (External) | 10% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.93 |
| SHGC | 0.86 |
| U-Value - (W/m ² K) | 5.80 |
| Glare Reduction | 0% |
| Solar Energy Reflected | 9% |
| Solar Energy Absorbed | 7% |
| Estimated Fade Reduction* | 46% |

Benefits:

- Manufactured to comply with Safety Glazing Standard AS/NZS2208 when applied to 3mm glass and above.
- Most popular where glass strengthening is required without visible appearance of film having been applied.
- Clear appearance makes it ideal for display windows.
- Almost five times thicker than normal film, substantially increasing strength and safety features (175 microns).
- Ideal for glass upgrade.
- Over 98% of harmful UV rejected.
- World's toughest scratch resistant surface.
- 4.5kg (10lb) pressure sensitive mounting adhesive.
- Puncture strength 145 pounds force.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

Note: It is the sellers/installers responsibility to determine application & 'duty of care' requirements as required by building standards.

DC 2690

Security Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 62% |
| Visible Light Transmitted | 16% |
| Visible Light Reflected (External) | 12% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.43 |
| SHGC | 0.38 |
| U-Value - (W/m ² K) | 5.70 |
| Glare Reduction | 82% |
| Solar Energy Reflected | 11% |
| Solar Energy Absorbed | 69% |
| Estimated Fade Reduction* | 76% |

Benefits:

- Solar properties: Same as NS18

PHYSICAL PROPERTIES:

- Tensile Strength* 29,400 (pounds per square inch)
- Break Strength* 171 (pounds force per inch width)
- Elongation at break >100%
- Peel Strength*1 >2720 (grams per inch width)
- Puncture strength 129 (pounds force)
- Manufactured to comply with Safety Glazing Standard ASNZS2208 when applied to 3mm glass and above.
- Multi-layer film construction.
- Over 4 times thicker than normal film, substantially increasing strength and safety features (175 micron)
- World's toughest scratch resistant surface.
- 4.5kg (10lb) pressure sensitive mounting adhesive
- Lifetime warranty residential – not transferable
- 12 year warranty commercial – not transferable

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

*1 Due to new construction, the physical property data is an 'in-house' estimate. When testing is complete, new data will be provided.



Note: It is the sellers/installers responsibility to determine application & 'duty of care' requirements as required by building standards.

DC 3131

Safety Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 14% |
| Visible Light Transmitted | 87% |
| Visible Light Reflected (External) | 10% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.92 |
| SHGC | 0.86 |
| U-Value - (W/m ² K) | 5.80 |
| Glare Reduction | 0% |
| Solar Energy Reflected | 9% |
| Solar Energy Absorbed | 7% |
| Estimated Fade Reduction* | 46% |

Benefits:

- Manufactured to comply with Safety Glazing Standard AS/NZS2208 when applied to 3mm glass and above.
- Most popular where glass strengthening is required without visible appearance of film having been applied.
- Clear appearance makes it ideal for display windows.
- Over five times thicker than normal film, substantially increasing strength and safety features (200 microns).
- Ideal for glass upgrades.
- Over 98% of harmful UV rejected.
- World's toughest scratch resistant surface.
- 4.5kg (10lb) pressure sensitive mounting adhesive.
- Puncture strength 156 pounds force.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

Note: It is the sellers/installers responsibility to determine application & 'duty of care' requirements as required by building standards.

DC 3842

Safety Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 44% |
| Visible Light Transmitted | 48% |
| Visible Light Reflected (External) | 13% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.64 |
| SHGC | 0.56 |
| U-Value - (W/m ² K) | 5.68 |
| Glare Reduction | 45% |
| Solar Energy Reflected | 12% |
| Solar Energy Absorbed | 40% |
| Estimated Fade Reduction* | 63% |

Benefits:

- W.E.R.S. Rating 2 Stars (cooling/ 0.5 star (heating).
- Maximum protection security film.
- Manufactured to comply with Safety Glazing Standard AS/NZS2208 when applied to 3mm glass and above.
- Multi-layer film construction.
- 44% heat reduction.
- Reduces 45% of glare.
- Almost six times thicker than normal film, substantially increasing strength and safety features (200 micron).
- World's toughest scratch resistant surface.
- 4.5kg (10lb) pressure sensitive mounting adhesive.
- Puncture strength 164 pounds force.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

Note: It is the sellers/installers responsibility to determine application & 'duty of care' requirements as required by building standards.

DC 3141

Safety Series

Performance Data:

| | |
|------------------------------------|------|
| Total Solar Energy Rejected (Heat) | 14% |
| Visible Light Transmitted | 87% |
| Visible Light Reflected (External) | 10% |
| Ultra Violet Rejected | >98% |
| Shading Coefficient | 0.92 |
| SHGC | 0.86 |
| U-Value - (W/m ² K) | 5.80 |
| Glare Reduction | 0% |
| Solar Energy Reflected | 9% |
| Solar Energy Absorbed | 7% |
| Estimated Fade Reduction* | 46% |

Benefits:

- Manufactured to comply with Safety Glazing Standard AS/NZS2208 when applied to 3mm glass and above.
- Most popular where glass strengthening is required without visible appearance of film having been applied.
- Clear appearance makes it ideal for display windows.
- Over seven times thicker than normal film, substantially increasing strength and safety features (275 microns).
- Ideal for glass upgrades.
- Over 98% of harmful UV rejected.
- World's toughest scratch resistant surface.
- 4.5kg (10lb) pressure sensitive mounting adhesive.
- Puncture strength 187 pounds force.
- Lifetime warranty residential - not transferable.
- 12 year warranty commercial - not transferable.

Applied to 6mm clear glass

*This data is a guide enabling an estimate only of fade reduction. As there are variables that cause fading, it would be impossible to give an exact figure. The data therefore does not constitute warranty.

hpwf.

Note: It is the sellers/installers responsibility to determine application & 'duty of care' requirements as required by building standards.

3M DUSTED AND FROSTED CRYSTAL SERIES

Benefits:

- Dusted Crystal cast vinyl film has the appearance of etched glass.
- Frosted Crystal cast vinyl film has the appearance of sand-blasted glass.
- More cost effective, elegant and versatile than sand blasted or acid etching glass.
- Dusted and frosted crystal films are intended for use in creating window graphics and internally illuminated displays applied to flat, clear surfaces.
- For interior and exterior applications.
- Uniform colour in both reflected and transmitted light.
- Low gloss eliminates glare.
- Durable, dimensionally stable, translucent films - cast vinyl.
- Superior cutting and ease of use. Complex designs are made easy.

Considerations:

- The following uses and applications are specifically NOT warranted.
- Screen printing on dusted or frosted crystal films.
- Application of dusted or frosted crystal films between two sheets of glass.
- Application to corrugated surfaces.
- Application to non-vertical surfaces.
- Exposure to petrochemical spills.
- Automotive applications.

Warranty:

| |
|---|
| 3 year outdoor warranty on vertical surfaces. |
| 7 year warranty on inside surface of vertical glass facing outside. |
| 15 year internal partitioning warranty. |
| FILM ONLY - NO LABOUR |

3M HAZE

Decorative Vinyl Series

Benefits:

- Vinyl film - calendared high quality polymeric PVC film with a permanent clear acrylic pressure sensitive.
- Can be used as a decorative flat glass film or be computer cut to create specific designs.
- Used externally in glass partitions in commercial offices to create either full or partial privacy.
- Designed for easy cutting and weeding for the computer sign market.
- Has the look of real acid etched glass.
- Eliminates the need for sandblasting.
- Vinyl film has less static to reduce dust.
- Unique light blue colour paper backing makes it easy to weed out fine cutting.
- Light off-white colour.
- 48 inch/1260 mm wide roll.

Warranty:

| |
|---|
| 3 years exterior - not transferable - non MEP Films Labour Warranty |
| 5 years internal - not transferable - non MEP Films Labour Warranty |
| 7 years internal partition - not transferable - non MEP Films Labour Warranty |

3M SAND BLAST

Decorative Vinyl Series

Benefits:

- Vinyl film - calendared high quality polymeric PVC film with a permanent clear acrylic pressure sensitive.
- Ideal for internal partitions.
- Sparkle appearance - sand blasted appearance.
- Can be used as a decorative flat glass film or be computer cut to create specific designs.
- Used extensively on glass partitions in connected offices to create either full or partial privacy.
- Eliminates the need for sandblasted glass.
- Vinyl film has less static to reduce dust.
- Strengthens glass.
- Pressure sensitive adhesive.
- Often used for company logos on front glass doors.
- 48 inch/1260mm wide roll.

Warranty:

| |
|---|
| 3 years exterior - not transferable - non MEP Films Labour Warranty |
| 5 years internal - not transferable - non MEP Films Labour Warranty |
| 7 years internal partition - not transferable - non MEP Films Labour Warranty |

METAMARK M4/M7 VINYL SERIES

Benefits:

- More cost effective, elegant and versatile than sand-blasted or acid etched glass.
- M7 Dusted, Silver and Crystal Etch films are intended for use in creating window graphics and internally illuminated displays applied to flat, clear surfaces.
- Crystal Etch has a distinct glitter effect.
- For interior and exterior applications.
- Uniform colour in both reflected and transmitted light.
- Low gloss eliminates glare.
- Durable, dimensionally stable, translucent film - calendered vinyl.
- Superior cutting and ease of use. Complex designed are made easy.

Considerations:

- The following uses and applications are specifically NOT warranted.
- Screen printing on M4 & M7 vinyl films.
- Application of M4 & M7 vinyl films between two sheets of glass.
- Application to corrugated surfaces.
- Application to non-vertical surfaces.
- Exposure to petrochemical spills.
- Automotive applications.
- M4 Frost is a monomeric calendered film which provides an opal etched glass effect with a medium level opacity.
- M7 Dusted Etch, Silver Etch and Crystal Etch are polymeric calendered films with the appearance of sand-blasted glass.
- M7 Dusted, Silver and Crystal Etch vinyls are specifically formulated for producing fine window decals and manifestation. Crystal Etch offers a distinctive glitter effect.
- Dusted Etch provides a higher level of transparency for more subtle window markings.
- The 80 and 70 micron film and high quality release liner and adhesive provide fast cutting and easy weeding on all computerised sign making equipment.

Warranty:

| |
|---|
| M4 - 3 year external on vertical surfaces. |
| M7 - 5 year external on vertical surfaces. |
| M4 & M7 - 5 year inside on vertical surfaces. |
| M4 & M7 - 7 year internal partitioning. |

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