



CONTENTS

Updated 1/17/2012

VISTA FILMS ON VARIOUS GLASS TYPES

[Chart 1-V Single-3mm-Clear](#)
[Chart 2-V Single-6mm-Clear](#)
[Chart 3-V Single-3mm-Grey](#)
[Chart 4-V Single-6mm-Grey](#)
[Chart 5-V Single-3mm-Bronze](#)
[Chart 6-V Single-6mm-Bronze](#)
[Chart 7-V Single-3mm-Green](#)
[Chart 8-V Single-6mm-Green](#)
[Chart 9-V IGU-3mm-Clear](#)
[Chart 10-V IGU-6mm-Clear](#)
[Chart 11-V IGU-3mm-Grey](#)
[Chart 12-V IGU-6mm-Grey](#)
[Chart 13-V IGU-3mm-Bronze](#)
[Chart 14-V IGU-6mm-Bronze](#)
[Chart 15-V IGU-3mm-Green](#)
[Chart 16-V IGU-6mm-Green](#)
[Chart 17-V IGU-3mm-LowE](#)
[Chart 18-V IGU-6mm-LowE](#)
[Chart 19-V IGU-3mm-LowE 2](#)
[Chart 20-V IGU-6mm-LowE 2](#)

© 2012 Solutia Inc., St. Louis, Missouri, U.S.A. All rights reserved. Vista and Vista Logo are trademarks of Solutia Inc. and/or its affiliates. As used herein, ® denotes registered trademark status in the U.S. only. All other trademarks, logos and designs are the property of their respective owners. All text, graphic and image rights reserved.

CHART 1: Single-Pane, 1/8 Inch (3mm), Clear



| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | | | | | | | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 83 | 8 | 9 | 90 | 8 | 8 | 29 | 1.03 | 1.00 | 14 | 0.86 | 0.84 | 1.05 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 30 | 20 | 50 | 33 | 22 | 19 | 99.9 | 1.02 | 0.53 | 54 | 0.46 | 0.84 | 0.72 | 47% | 1% | 63% |
| V45 SR CDF | 39 | 15 | 46 | 43 | 17 | 14 | 99.9 | 1.04 | 0.62 | 47 | 0.53 | 0.84 | 0.81 | 38% | -1% | 52% |
| V58 SR CDF | 54 | 12 | 34 | 59 | 13 | 9 | 99.9 | 1.03 | 0.75 | 35 | 0.65 | 0.84 | 0.91 | 25% | 0% | 34% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 8 | 48 | 44 | 11 | 52 | 24 | 99.9 | 1.00 | 0.25 | 79 | 0.21 | 0.80 | 0.52 | 75% | 3% | 88% |
| V18 SR CDF | 15 | 38 | 47 | 20 | 39 | 20 | 99.9 | 0.96 | 0.34 | 71 | 0.29 | 0.68 | 0.69 | 66% | 7% | 78% |
| V28 SR CDF (PS8) | 19 | 34 | 47 | 26 | 37 | 22 | 99.9 | 1.00 | 0.38 | 68 | 0.32 | 0.81 | 0.81 | 62% | 3% | 71% |
| V28 SR PS8 | 22 | 31 | 47 | 27 | 32 | 22 | 99.9 | 1.03 | 0.42 | 64 | 0.36 | 0.81 | 0.75 | 58% | 0% | 70% |
| V38 SR CDF | 31 | 24 | 45 | 40 | 23 | 16 | 99.9 | 1.02 | 0.52 | 55 | 0.45 | 0.78 | 0.89 | 48% | 1% | 56% |
| V38 SR PS8 | 30 | 25 | 45 | 38 | 26 | 19 | 99.9 | 0.99 | 0.51 | 56 | 0.44 | 0.84 | 0.86 | 49% | 4% | 58% |
| V48 SR CDF | 39 | 14 | 47 | 46 | 14 | 10 | 99.9 | 1.03 | 0.62 | 47 | 0.53 | 0.73 | 0.87 | 38% | 0% | 49% |
| V33 BR SR CDF | 23 | 43 | 34 | 36 | 25 | 18 | 99.9 | 0.98 | 0.38 | 68 | 0.32 | 0.78 | 1.13 | 62% | 5% | 60% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 20 | 19 | 61 | 36 | 7 | 8 | 99.9 | 0.91 | 0.43 | 64 | 0.36 | 0.60 | 1.00 | 57% | 12% | 60% |
| V40 SR CDF | 35 | 19 | 46 | 44 | 8 | 9 | 99.9 | 0.94 | 0.55 | 53 | 0.47 | 0.70 | 0.94 | 45% | 9% | 51% |
| V41 SR CDF | 30 | 20 | 50 | 47 | 7 | 7 | 99.9 | 0.94 | 0.50 | 57 | 0.43 | 0.70 | 1.09 | 50% | 9% | 48% |
| V50 SR CDF | 39 | 19 | 42 | 51 | 8 | 8 | 99.9 | 0.97 | 0.59 | 49 | 0.51 | 0.70 | 1.00 | 41% | 6% | 43% |
| V51 SR CDF | 34 | 23 | 43 | 54 | 8 | 8 | 99.9 | 0.91 | 0.53 | 54 | 0.46 | 0.61 | 1.17 | 47% | 12% | 40% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 20 | 46 | 34 | 31 | 42 | 39 | 99.9 | 0.76 | 0.32 | 73 | 0.27 | 0.33 | 1.15 | 68% | 26% | 66% |
| VE50 SR CDF | 35 | 32 | 33 | 49 | 25 | 23 | 99.9 | 0.80 | 0.49 | 58 | 0.42 | 0.36 | 1.17 | 51% | 22% | 46% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 10 | 65 | 25 | 14 | 65 | 61 | 99.9 | 1.04 | 0.20 | 83 | 0.17 | 0.70 | 0.82 | 80% | -1% | 84% |
| VNE35 ER HPR | 33 | 18 | 49 | 38 | 19 | 15 | 99.9 | 1.04 | 0.56 | 52 | 0.48 | 0.83 | 0.79 | 44% | -1% | 58% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 19 | 49 | 32 | 33 | 48 | 30 | 99 | 0.60 | 0.28 | 76 | 0.24 | 0.07 | 1.38 | 72% | 42% | 63% |
| VEP70 SR CDF | 46 | 21 | 33 | 70 | 8 | 4 | 99 | 0.61 | 0.59 | 49 | 0.51 | 0.09 | 1.37 | 41% | 41% | 22% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 33 | 25 | 42 | 62 | 9 | 9 | 99.9 | 0.92 | 0.52 | 55 | 0.45 | 0.67 | 1.38 | 48% | 11% | 31% |
| VS61 SR CDF | 43 | 29 | 28 | 61 | 20 | 20 | 99.9 | 0.92 | 0.58 | 50 | 0.50 | 0.67 | 1.22 | 42% | 11% | 32% |
| VS70 SR CDF | 39 | 26 | 35 | 70 | 8 | 8 | 99.9 | 0.90 | 0.56 | 52 | 0.48 | 0.66 | 1.46 | 44% | 13% | 22% |
| VS80BL SR CDF | 40 | 6 | 54 | 76 | 9 | 9 | 99.9 | 1.03 | 0.65 | 44 | 0.56 | 0.82 | 1.36 | 35% | 0% | 16% |

CHART 2: Single-Pane, 1/4 Inch (6mm), Clear



| | | | | | | | | | | | | | | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|-------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorptance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 77 | 7 | 16 | 88 | 8 | 8 | 38 | 1.03 | 0.94 | 18 | 0.82 | 0.84 | 1.07 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 27 | 17 | 56 | 33 | 21 | 19 | 99.9 | 1.02 | 0.52 | 56 | 0.44 | 0.84 | 0.75 | 45% | 1% | 63% |
| V45 SR CDF | 35 | 13 | 52 | 42 | 16 | 14 | 99.9 | 1.03 | 0.60 | 48 | 0.52 | 0.84 | 0.81 | 36% | 0% | 52% |
| V58 SR CDF | 49 | 10 | 41 | 58 | 12 | 9 | 99.9 | 1.03 | 0.71 | 39 | 0.61 | 0.84 | 0.95 | 24% | 0% | 34% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 8 | 40 | 52 | 11 | 50 | 24 | 99.9 | 1.00 | 0.28 | 77 | 0.23 | 0.80 | 0.48 | 70% | 3% | 88% |
| V18 SR CDF | 14 | 31 | 55 | 20 | 37 | 20 | 99.9 | 0.96 | 0.36 | 69 | 0.31 | 0.68 | 0.65 | 62% | 7% | 77% |
| V28 SR CDF (PS8) | 17 | 29 | 54 | 25 | 35 | 22 | 99.9 | 0.99 | 0.39 | 67 | 0.33 | 0.78 | 0.76 | 59% | 4% | 72% |
| V38 SR CDF (PS8) | 29 | 20 | 51 | 39 | 22 | 16 | 99.9 | 1.02 | 0.52 | 56 | 0.44 | 0.78 | 0.89 | 45% | 1% | 56% |
| V48 SR CDF | 35 | 12 | 53 | 45 | 14 | 10 | 99.9 | 1.03 | 0.60 | 48 | 0.52 | 0.73 | 0.87 | 36% | 0% | 49% |
| V33 BR SR CDF | 21 | 34 | 45 | 35 | 24 | 18 | 99.9 | 0.98 | 0.40 | 66 | 0.34 | 0.78 | 1.03 | 57% | 5% | 60% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 19 | 15 | 66 | 35 | 7 | 8 | 99.9 | 0.91 | 0.43 | 63 | 0.37 | 0.60 | 0.95 | 54% | 12% | 60% |
| V40 SR CDF | 31 | 15 | 54 | 43 | 8 | 9 | 99.9 | 0.94 | 0.54 | 54 | 0.46 | 0.70 | 0.93 | 43% | 9% | 51% |
| V41 SR CDF | 27 | 16 | 57 | 46 | 7 | 7 | 99.9 | 0.94 | 0.50 | 57 | 0.43 | 0.70 | 1.07 | 47% | 9% | 48% |
| V50 SR CDF | 36 | 15 | 49 | 50 | 8 | 8 | 99.9 | 0.97 | 0.57 | 51 | 0.49 | 0.70 | 1.02 | 39% | 6% | 43% |
| V51 SR CDF | 32 | 18 | 50 | 53 | 7 | 8 | 99.9 | 0.91 | 0.53 | 55 | 0.45 | 0.61 | 1.18 | 44% | 12% | 40% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 19 | 37 | 44 | 30 | 40 | 39 | 99.9 | 0.76 | 0.33 | 72 | 0.28 | 0.33 | 1.07 | 65% | 26% | 66% |
| VE50 SR CDF | 32 | 26 | 42 | 48 | 24 | 23 | 99.9 | 0.80 | 0.49 | 58 | 0.42 | 0.36 | 1.14 | 48% | 22% | 45% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 9 | 65 | 26 | 13 | 65 | 59 | 99.9 | 1.02 | 0.20 | 83 | 0.17 | 0.70 | 0.76 | 79% | 1% | 85% |
| VNE35 ER HPR | 31 | 18 | 51 | 37 | 19 | 15 | 99.9 | 1.02 | 0.54 | 54 | 0.46 | 0.83 | 0.80 | 43% | 1% | 58% |
| ENERGLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 18 | 42 | 40 | 31 | 46 | 28 | 99 | 0.59 | 0.28 | 76 | 0.24 | 0.07 | 1.29 | 70% | 43% | 65% |
| VEP70 SR CDF | 43 | 18 | 39 | 68 | 8 | 4 | 99 | 0.60 | 0.57 | 51 | 0.49 | 0.09 | 1.39 | 39% | 42% | 23% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 31 | 19 | 50 | 60 | 8 | 9 | 99.9 | 0.92 | 0.52 | 55 | 0.45 | 0.67 | 1.33 | 45% | 11% | 32% |
| VS61 SR CDF | 43 | 21 | 36 | 62 | 18 | 19 | 99.9 | 0.92 | 0.61 | 47 | 0.53 | 0.67 | 1.17 | 35% | 11% | 30% |
| VS70 SR CDF | 36 | 20 | 44 | 69 | 8 | 8 | 99.9 | 0.90 | 0.56 | 52 | 0.48 | 0.66 | 1.44 | 40% | 13% | 22% |
| VS80BL SR CDF | 38 | 6 | 56 | 75 | 8 | 8 | 99.9 | 1.03 | 0.63 | 46 | 0.54 | 0.82 | 1.39 | 33% | 0% | 15% |

CHART 3: Single-Pane, 1/8 Inch (3mm), Grey



| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | | | | | | | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 58 | 6 | 36 | 60 | 6 | 7 | 63 | 1.04 | 0.79 | 32 | 0.68 | 0.84 | 0.88 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 20 | 12 | 68 | 22 | 12 | 19 | 99.9 | 1.02 | 0.49 | 58 | 0.42 | 0.84 | 0.52 | 38% | 2% | 63% |
| V45 SR CDF | 27 | 9 | 64 | 29 | 10 | 13 | 99.9 | 1.04 | 0.55 | 53 | 0.47 | 0.84 | 0.62 | 30% | 0% | 52% |
| V58 SR CDF | 37 | 8 | 55 | 40 | 8 | 8 | 99.9 | 1.03 | 0.63 | 46 | 0.54 | 0.84 | 0.74 | 20% | 1% | 33% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 6 | 25 | 69 | 7 | 26 | 24 | 99.9 | 1.00 | 0.32 | 73 | 0.27 | 0.80 | 0.26 | 59% | 4% | 88% |
| V18 SR CDF | 10 | 20 | 70 | 13 | 20 | 20 | 99.9 | 0.96 | 0.37 | 68 | 0.32 | 0.68 | 0.41 | 53% | 8% | 78% |
| V28 SR CDF (PS8) | 13 | 18 | 69 | 17 | 19 | 22 | 99.9 | 1.01 | 0.39 | 67 | 0.33 | 0.78 | 0.52 | 51% | 3% | 72% |
| V38 SR CDF (PS8) | 21 | 13 | 66 | 26 | 13 | 16 | 99.9 | 1.02 | 0.48 | 59 | 0.41 | 0.78 | 0.63 | 39% | 2% | 57% |
| V48 SR CDF | 27 | 9 | 64 | 31 | 9 | 10 | 99.9 | 1.03 | 0.54 | 53 | 0.47 | 0.73 | 0.66 | 32% | 1% | 48% |
| V33 BR SR CDF | 15 | 22 | 63 | 24 | 14 | 18 | 99.9 | 0.98 | 0.39 | 66 | 0.34 | 0.78 | 0.71 | 51% | 6% | 60% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 14 | 11 | 75 | 24 | 6 | 8 | 99.9 | 0.91 | 0.40 | 66 | 0.34 | 0.60 | 0.71 | 49% | 13% | 60% |
| V40 SR CDF | 23 | 11 | 66 | 29 | 6 | 8 | 99.9 | 0.94 | 0.48 | 59 | 0.41 | 0.70 | 0.71 | 39% | 10% | 52% |
| V41 SR CDF | 20 | 12 | 68 | 32 | 6 | 7 | 99.9 | 0.94 | 0.46 | 61 | 0.39 | 0.70 | 0.82 | 42% | 10% | 47% |
| V50 SR CDF | 27 | 11 | 62 | 34 | 6 | 8 | 99.9 | 0.97 | 0.51 | 56 | 0.44 | 0.70 | 0.77 | 35% | 7% | 43% |
| V51 SR CDF | 23 | 13 | 64 | 36 | 6 | 7 | 99.9 | 0.91 | 0.48 | 59 | 0.41 | 0.61 | 0.88 | 39% | 13% | 40% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 14 | 24 | 62 | 20 | 21 | 39 | 99.9 | 0.76 | 0.32 | 73 | 0.27 | 0.33 | 0.74 | 59% | 27% | 67% |
| VE50 SR CDF | 24 | 17 | 59 | 33 | 14 | 23 | 99.9 | 0.80 | 0.44 | 63 | 0.37 | 0.36 | 0.89 | 44% | 23% | 45% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 7 | 65 | 28 | 9 | 65 | 30 | 99.9 | 1.04 | 0.18 | 85 | 0.15 | 0.70 | 0.60 | 77% | 0% | 85% |
| VNE35 ER HPR | 23 | 18 | 59 | 25 | 18 | 9 | 99.9 | 1.04 | 0.48 | 59 | 0.41 | 0.83 | 0.61 | 39% | 0% | 58% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 13 | 26 | 61 | 21 | 24 | 28 | 99 | 0.60 | 0.27 | 77 | 0.23 | 0.07 | 0.91 | 66% | 42% | 65% |
| VEP70 SR CDF | 32 | 13 | 55 | 47 | 6 | 3 | 99 | 0.61 | 0.48 | 59 | 0.41 | 0.09 | 1.15 | 40% | 41% | 22% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 23 | 14 | 63 | 41 | 6 | 8 | 99.9 | 0.92 | 0.47 | 60 | 0.40 | 0.67 | 1.03 | 41% | 12% | 32% |
| VS61 SR CDF | 32 | 15 | 53 | 42 | 11 | 18 | 99.9 | 0.92 | 0.54 | 54 | 0.46 | 0.67 | 0.91 | 32% | 12% | 30% |
| VS70 SR CDF | 26 | 14 | 60 | 47 | 6 | 7 | 99.9 | 0.90 | 0.49 | 58 | 0.42 | 0.66 | 1.12 | 38% | 13% | 22% |
| VS80BL SR CDF | 28 | 5 | 67 | 51 | 6 | 7 | 99.9 | 1.03 | 0.55 | 53 | 0.47 | 0.82 | 1.09 | 30% | 1% | 15% |

CHART 4: Single-Pane, 1/4 Inch (6mm), Grey



| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorptance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|-------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | | | | | | | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 42 | 5 | 53 | 44 | 6 | 6 | 76 | 1.03 | 0.67 | 42 | 0.58 | 0.84 | 0.76 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 15 | 8 | 77 | 16 | 9 | 18 | 99.9 | 1.02 | 0.46 | 61 | 0.39 | 0.84 | 0.41 | 31% | 1% | 64% |
| V45 SR CDF | 19 | 7 | 74 | 21 | 8 | 13 | 99.9 | 1.03 | 0.50 | 57 | 0.43 | 0.84 | 0.49 | 25% | 0% | 52% |
| V58 SR CDF | 27 | 6 | 67 | 29 | 7 | 8 | 99.9 | 1.03 | 0.56 | 52 | 0.48 | 0.84 | 0.60 | 16% | 0% | 34% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 4 | 15 | 81 | 5 | 16 | 24 | 99.9 | 1.00 | 0.35 | 71 | 0.29 | 0.80 | 0.17 | 48% | 3% | 89% |
| V18 SR CDF | 7 | 13 | 80 | 10 | 13 | 20 | 99.9 | 0.96 | 0.38 | 68 | 0.32 | 0.68 | 0.31 | 43% | 7% | 77% |
| V28 SR CDF (PS8) | 9 | 12 | 79 | 13 | 12 | 22 | 99.9 | 0.99 | 0.38 | 67 | 0.33 | 0.78 | 0.39 | 43% | 4% | 70% |
| V38 SR CDF (PS8) | 15 | 9 | 76 | 19 | 9 | 15 | 99.9 | 1.02 | 0.45 | 61 | 0.39 | 0.78 | 0.49 | 33% | 1% | 57% |
| V48 SR CDF | 19 | 7 | 74 | 23 | 7 | 9 | 99.9 | 1.03 | 0.50 | 57 | 0.43 | 0.73 | 0.53 | 25% | 0% | 48% |
| V33 BR SR CDF | 11 | 14 | 75 | 18 | 10 | 18 | 99.9 | 0.98 | 0.39 | 66 | 0.34 | 0.78 | 0.53 | 42% | 5% | 59% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 10 | 8 | 82 | 18 | 5 | 8 | 99.9 | 0.91 | 0.39 | 67 | 0.33 | 0.60 | 0.55 | 42% | 12% | 59% |
| V40 SR CDF | 17 | 8 | 75 | 22 | 5 | 8 | 99.9 | 0.94 | 0.45 | 62 | 0.38 | 0.70 | 0.58 | 33% | 9% | 50% |
| V41 SR CDF | 15 | 8 | 77 | 23 | 5 | 7 | 99.9 | 0.94 | 0.43 | 64 | 0.36 | 0.70 | 0.64 | 36% | 9% | 48% |
| V50 SR CDF | 19 | 8 | 73 | 25 | 5 | 7 | 99.9 | 0.97 | 0.47 | 60 | 0.40 | 0.70 | 0.63 | 30% | 6% | 43% |
| V51 SR CDF | 17 | 9 | 74 | 27 | 5 | 7 | 99.9 | 0.91 | 0.44 | 62 | 0.38 | 0.61 | 0.71 | 34% | 12% | 39% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 10 | 15 | 75 | 15 | 14 | 39 | 99.9 | 0.76 | 0.32 | 73 | 0.27 | 0.33 | 0.56 | 52% | 26% | 66% |
| VE50 SR CDF | 17 | 11 | 72 | 24 | 10 | 22 | 99.9 | 0.80 | 0.4 | 66 | 0.34 | 0.36 | 0.71 | 40% | 22% | 45% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 5 | 65 | 30 | 7 | 65 | 18 | 99.9 | 1.02 | 0.16 | 86 | 0.14 | 0.70 | 0.50 | 76% | 1% | 84% |
| VNE35 ER HPR | 17 | 17 | 66 | 19 | 18 | 7 | 99.9 | 1.02 | 0.43 | 63 | 0.37 | 0.83 | 0.51 | 36% | 1% | 57% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 10 | 16 | 74 | 16 | 15 | 28 | 99 | 0.59 | 0.26 | 78 | 0.22 | 0.07 | 0.73 | 61% | 43% | 64% |
| VEP70 SR CDF | 23 | 9 | 68 | 35 | 5 | 2 | 99 | 0.60 | 0.41 | 66 | 0.34 | 0.09 | 1.03 | 40% | 42% | 20% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 17 | 9 | 74 | 30 | 6 | 8 | 99.9 | 0.92 | 0.44 | 62 | 0.38 | 0.67 | 0.79 | 34% | 11% | 32% |
| VS61 SR CDF | 23 | 10 | 67 | 31 | 8 | 17 | 99.9 | 0.92 | 0.49 | 58 | 0.42 | 0.67 | 0.74 | 27% | 11% | 30% |
| VS70 SR CDF | 19 | 9 | 72 | 35 | 6 | 6 | 99.9 | 0.90 | 0.46 | 61 | 0.39 | 0.66 | 0.90 | 31% | 13% | 20% |
| VS80BL SR CDF | 20 | 5 | 75 | 38 | 6 | 6 | 99.9 | 1.03 | 0.5 | 57 | 0.43 | 0.82 | 0.88 | 25% | 0% | 14% |

**CHART 5: Single-Pane, 1/8
Inch (3mm), Bronze**



| | | | | | | | | | | | | | | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|-------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|--|-----------------------------------|------------------------|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorptance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | (15) % Summer Solar Heat Gain Reducior | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 65 | 6 | 29 | 68 | 7 | 7 | 62 | 1.04 | 0.84 | 27 | 0.73 | 0.84 | 0.93 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 23 | 13 | 64 | 25 | 14 | 19 | 99.9 | 1.02 | 0.50 | 57 | 0.43 | 0.84 | 0.58 | 40% | 2% | 63% |
| V45 SR CDF | 30 | 10 | 60 | 33 | 11 | 13 | 99.9 | 1.04 | 0.56 | 52 | 0.48 | 0.84 | 0.69 | 33% | 0% | 51% |
| V58 SR CDF | 41 | 9 | 50 | 45 | 9 | 9 | 99.9 | 1.03 | 0.66 | 43 | 0.57 | 0.84 | 0.79 | 21% | 1% | 34% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 6 | 30 | 64 | 8 | 31 | 24 | 99.9 | 1.00 | 0.30 | 74 | 0.26 | 0.80 | 0.31 | 64% | 4% | 88% |
| V18 SR CDF | 11 | 24 | 65 | 15 | 24 | 20 | 99.9 | 0.96 | 0.37 | 69 | 0.31 | 0.68 | 0.48 | 56% | 8% | 78% |
| V28 SR CDF (PS8) | 14 | 22 | 64 | 19 | 22 | 22 | 99.9 | 1.01 | 0.38 | 67 | 0.33 | 0.78 | 0.58 | 55% | 3% | 72% |
| V38 SR CDF (PS8) | 24 | 15 | 61 | 30 | 15 | 16 | 99.9 | 1.02 | 0.49 | 58 | 0.42 | 0.78 | 0.71 | 42% | 2% | 56% |
| V48 SR CDF | 30 | 10 | 60 | 35 | 10 | 10 | 99.9 | 1.03 | 0.56 | 52 | 0.48 | 0.73 | 0.73 | 33% | 1% | 49% |
| V33 BR SR CDF | 17 | 27 | 56 | 27 | 16 | 18 | 99.9 | 0.98 | 0.39 | 67 | 0.33 | 0.78 | 0.82 | 54% | 6% | 60% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 15 | 13 | 72 | 27 | 6 | 8 | 99.9 | 0.91 | 0.41 | 65 | 0.35 | 0.60 | 0.77 | 51% | 13% | 60% |
| V40 SR CDF | 26 | 13 | 61 | 33 | 6 | 8 | 99.9 | 0.94 | 0.50 | 57 | 0.43 | 0.70 | 0.77 | 40% | 10% | 51% |
| V41 SR CDF | 23 | 14 | 63 | 36 | 6 | 7 | 99.9 | 0.94 | 0.47 | 60 | 0.40 | 0.70 | 0.90 | 44% | 10% | 47% |
| V50 SR CDF | 30 | 13 | 57 | 38 | 6 | 8 | 99.9 | 0.97 | 0.53 | 54 | 0.46 | 0.70 | 0.83 | 37% | 7% | 44% |
| V51 SR CDF | 26 | 15 | 59 | 41 | 6 | 7 | 99.9 | 0.91 | 0.49 | 58 | 0.42 | 0.61 | 0.98 | 42% | 13% | 40% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 15 | 28 | 57 | 23 | 26 | 39 | 99.9 | 0.76 | 0.32 | 73 | 0.27 | 0.33 | 0.85 | 62% | 27% | 66% |
| VE50 SR CDF | 26 | 20 | 54 | 37 | 16 | 23 | 99.9 | 0.80 | 0.45 | 61 | 0.39 | 0.36 | 0.95 | 46% | 23% | 46% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 7 | 65 | 28 | 10 | 65 | 36 | 99.9 | 1.04 | 0.18 | 84 | 0.16 | 0.70 | 0.63 | 79% | 0% | 85% |
| VNE35 ER HPR | 26 | 18 | 56 | 28 | 18 | 10 | 99.9 | 1.04 | 0.5 | 57 | 0.43 | 0.83 | 0.65 | 40% | 0% | 59% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 15 | 31 | 54 | 24 | 29 | 28 | 99 | 0.60 | 0.27 | 77 | 0.23 | 0.07 | 1.04 | 68% | 42% | 65% |
| VEP70 SR CDF | 36 | 15 | 49 | 53 | 6 | 3 | 99 | 0.61 | 0.51 | 57 | 0.43 | 0.09 | 1.23 | 40% | 41% | 22% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 25 | 16 | 59 | 46 | 7 | 8 | 99.9 | 0.92 | 0.48 | 59 | 0.41 | 0.67 | 1.12 | 43% | 12% | 32% |
| VS61 SR CDF | 35 | 17 | 48 | 47 | 13 | 18 | 99.9 | 0.92 | 0.56 | 52 | 0.48 | 0.67 | 0.98 | 33% | 12% | 31% |
| VS70 SR CDF | 29 | 17 | 54 | 53 | 6 | 7 | 99.9 | 0.90 | 0.51 | 56 | 0.44 | 0.66 | 1.20 | 39% | 13% | 22% |
| VS80BL SR CDF | 31 | 5 | 64 | 57 | 7 | 7 | 99.9 | 1.03 | 0.58 | 51 | 0.49 | 0.82 | 1.16 | 31% | 1% | 16% |

CHART 6: Single-Pane, 1/4 Inch (6mm), Bronze



| | (1) % Total Solar Transmittance | | | (2) % Total Solar Reflectance | | | (3) % Total Solar Absorbance | | | (4) % Visible Transmittance | | | (5) % Visible Reflectance (exterior) | | | (6) % Visible Reflectance (interior) | | | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (L-SG) | Compared to window w/o film | | |
|------------------------------|---------------------------------|-----|-----|-------------------------------|-----|-----|------------------------------|------|------|-----------------------------|------|------|--------------------------------------|------|---|--------------------------------------|------------------------|--|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|--|-----------------------------|--|--|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction | | | | | | | | | | | |
| Window without film applied: | 49 | 5 | 46 | 53 | 6 | 6 | 76 | 1.02 | 0.72 | 38 | 0.62 | 0.84 | 0.85 | - | - | - | | | | | | | | | | | | |
| Window with film applied: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| V33 SR CDF | 13 | 17 | 70 | 21 | 12 | 18 | 99.9 | 1.02 | 0.40 | 66 | 0.34 | 0.84 | 0.62 | 44% | 0% | 60% | | | | | | | | | | | | |
| V45 SR CDF | 22 | 8 | 70 | 25 | 8 | 13 | 99.9 | 1.02 | 0.52 | 55 | 0.45 | 0.84 | 0.56 | 28% | 0% | 53% | | | | | | | | | | | | |
| V58 SR CDF | 31 | 7 | 62 | 35 | 7 | 8 | 99.9 | 1.02 | 0.59 | 49 | 0.51 | 0.84 | 0.69 | 18% | 0% | 34% | | | | | | | | | | | | |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| V14 SR CDF | 5 | 19 | 76 | 6 | 21 | 24 | 99.9 | 1.00 | 0.34 | 72 | 0.28 | 0.80 | 0.21 | 53% | 2% | 89% | | | | | | | | | | | | |
| V18 SR CDF | 9 | 15 | 76 | 12 | 16 | 20 | 99.9 | 0.96 | 0.38 | 68 | 0.32 | 0.68 | 0.38 | 47% | 6% | 77% | | | | | | | | | | | | |
| V28 SR CDF (PS8) | 11 | 14 | 75 | 15 | 15 | 22 | 99.9 | 0.99 | 0.39 | 67 | 0.33 | 0.78 | 0.45 | 46% | 3% | 72% | | | | | | | | | | | | |
| V38 SR CDF (PS8) | 18 | 11 | 71 | 23 | 11 | 15 | 99.9 | 1.02 | 0.47 | 60 | 0.40 | 0.78 | 0.58 | 35% | 0% | 57% | | | | | | | | | | | | |
| V48 SR CDF | 22 | 7 | 71 | 27 | 8 | 9 | 99.9 | 1.02 | 0.52 | 56 | 0.44 | 0.73 | 0.61 | 28% | 0% | 49% | | | | | | | | | | | | |
| V33 BR SR CDF | 13 | 17 | 70 | 21 | 12 | 18 | 99.9 | 0.98 | 0.40 | 66 | 0.34 | 0.78 | 0.62 | 44% | 4% | 60% | | | | | | | | | | | | |
| HARMONY SERIES | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| V31 SR CDF | 12 | 9 | 79 | 21 | 5 | 8 | 99.9 | 0.91 | 0.40 | 66 | 0.34 | 0.60 | 0.62 | 44% | 11% | 60% | | | | | | | | | | | | |
| V40 SR CDF | 19 | 9 | 72 | 26 | 6 | 8 | 99.9 | 0.94 | 0.46 | 61 | 0.39 | 0.70 | 0.67 | 36% | 8% | 51% | | | | | | | | | | | | |
| V41 SR CDF | 17 | 10 | 73 | 28 | 5 | 7 | 99.9 | 0.94 | 0.44 | 62 | 0.38 | 0.70 | 0.74 | 39% | 8% | 47% | | | | | | | | | | | | |
| V50 SR CDF | 22 | 9 | 69 | 30 | 6 | 7 | 99.9 | 0.97 | 0.49 | 58 | 0.42 | 0.70 | 0.71 | 32% | 5% | 43% | | | | | | | | | | | | |
| V51 SR CDF | 20 | 10 | 70 | 32 | 5 | 7 | 99.9 | 0.91 | 0.46 | 61 | 0.39 | 0.61 | 0.82 | 36% | 11% | 40% | | | | | | | | | | | | |
| LOW-E SERIES | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 11 | 18 | 71 | 18 | 17 | 39 | 99.9 | 0.76 | 0.32 | 73 | 0.27 | 0.33 | 0.67 | 56% | 25% | 66% | | | | | | | | | | | | |
| VE50 SR CDF | 20 | 13 | 67 | 29 | 12 | 23 | 99.9 | 0.80 | 0.42 | 64 | 0.36 | 0.36 | 0.81 | 42% | 22% | 45% | | | | | | | | | | | | |
| EXTERIOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 6 | 65 | 29 | 8 | 65 | 24 | 99.9 | 1.02 | 0.17 | 86 | 0.14 | 0.70 | 0.57 | 76% | 0% | 85% | | | | | | | | | | | | |
| VNE35 ER HPR | 19 | 17 | 64 | 22 | 18 | 8 | 99.9 | 1.02 | 0.45 | 61 | 0.39 | 0.83 | 0.56 | 38% | 0% | 58% | | | | | | | | | | | | |
| ENERLOGIC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 11 | 20 | 69 | 19 | 19 | 28 | 99 | 0.59 | 0.27 | 78 | 0.22 | 0.07 | 0.86 | 63% | 42% | 64% | | | | | | | | | | | | |
| VEP70 SR CDF | 27 | 10 | 63 | 41 | 5 | 2 | 99 | 0.60 | 0.44 | 63 | 0.37 | 0.09 | 1.11 | 39% | 41% | 23% | | | | | | | | | | | | |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 19 | 11 | 70 | 36 | 6 | 8 | 99.9 | 0.92 | 0.46 | 61 | 0.39 | 0.67 | 0.92 | 36% | 10% | 32% | | | | | | | | | | | | |
| VS61 SR CDF | 27 | 12 | 61 | 37 | 9 | 17 | 99.9 | 0.92 | 0.51 | 56 | 0.44 | 0.67 | 0.84 | 29% | 10% | 30% | | | | | | | | | | | | |
| VS70 SR CDF | 22 | 11 | 67 | 41 | 6 | 6 | 99.9 | 0.90 | 0.48 | 59 | 0.41 | 0.66 | 1.00 | 33% | 12% | 23% | | | | | | | | | | | | |
| VS80BL SR CDF | 23 | 5 | 72 | 45 | 6 | 7 | 99.9 | 1.02 | 0.53 | 55 | 0.45 | 0.82 | 1.00 | 26% | 0% | 15% | | | | | | | | | | | | |

**CHART 7: Single-Pane, 1/8
Inch (3mm), Green**



| | | | | | | | | | | | | | Compared to window w/o film | | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 48 | 6 | 46 | 77 | 7 | 7 | 72 | 1.04 | 0.72 | 38 | 0.62 | 0.84 | 1.24 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 17 | 10 | 73 | 28 | 17 | 19 | 99.9 | 1.02 | 0.47 | 60 | 0.40 | 0.84 | 0.70 | 35% | 2% | 64% |
| V45 SR CDF | 22 | 8 | 70 | 37 | 13 | 13 | 99.9 | 1.04 | 0.52 | 56 | 0.44 | 0.84 | 0.84 | 28% | 0% | 52% |
| V58 SR CDF | 31 | 7 | 62 | 50 | 11 | 9 | 99.9 | 1.03 | 0.59 | 50 | 0.50 | 0.84 | 1.00 | 18% | 1% | 35% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 5 | 20 | 75 | 9 | 39 | 24 | 99.9 | 1.00 | 0.33 | 72 | 0.28 | 0.80 | 0.32 | 54% | 4% | 88% |
| V18 SR CDF | 9 | 16 | 75 | 17 | 29 | 20 | 99.9 | 0.96 | 0.38 | 68 | 0.32 | 0.68 | 0.53 | 47% | 8% | 78% |
| V28 SR CDF (PS8) | 11 | 15 | 74 | 22 | 28 | 22 | 99.9 | 1.01 | 0.39 | 67 | 0.33 | 0.78 | 0.67 | 46% | 3% | 71% |
| V38 SR CDF (PS8) | 19 | 11 | 70 | 34 | 18 | 16 | 99.9 | 1.02 | 0.47 | 60 | 0.40 | 0.78 | 0.85 | 35% | 2% | 56% |
| V48 SR CDF | 23 | 8 | 69 | 39 | 12 | 10 | 99.9 | 1.03 | 0.52 | 56 | 0.44 | 0.73 | 0.89 | 28% | 1% | 49% |
| V33 BR SR CDF | 14 | 15 | 71 | 30 | 19 | 18 | 99.9 | 0.98 | 0.41 | 65 | 0.35 | 0.78 | 0.86 | 43% | 6% | 61% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 13 | 7 | 80 | 30 | 6 | 8 | 99.9 | 0.91 | 0.41 | 65 | 0.35 | 0.60 | 0.86 | 43% | 13% | 61% |
| V40 SR CDF | 20 | 8 | 72 | 37 | 7 | 8 | 99.9 | 0.94 | 0.47 | 60 | 0.40 | 0.70 | 0.93 | 35% | 10% | 52% |
| V41 SR CDF | 19 | 8 | 73 | 40 | 6 | 7 | 99.9 | 0.94 | 0.46 | 61 | 0.39 | 0.70 | 1.03 | 36% | 10% | 48% |
| V50 SR CDF | 23 | 8 | 69 | 43 | 7 | 8 | 99.9 | 0.97 | 0.50 | 58 | 0.42 | 0.70 | 1.02 | 31% | 7% | 44% |
| V51 SR CDF | 22 | 8 | 70 | 46 | 7 | 8 | 99.9 | 0.91 | 0.48 | 59 | 0.41 | 0.61 | 1.12 | 33% | 13% | 40% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 13 | 18 | 69 | 26 | 31 | 39 | 99.9 | 0.76 | 0.33 | 72 | 0.28 | 0.33 | 0.93 | 54% | 27% | 66% |
| VE50 SR CDF | 21 | 13 | 66 | 42 | 19 | 23 | 99.9 | 0.80 | 0.43 | 63 | 0.37 | 0.36 | 1.14 | 40% | 23% | 45% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 6 | 65 | 29 | 11 | 65 | 46 | 99.9 | 1.04 | 0.17 | 85 | 0.15 | 0.70 | 0.73 | 76% | 0% | 86% |
| VNE35 ER HPR | 19 | 18 | 63 | 32 | 19 | 12 | 99.9 | 1.04 | 0.45 | 62 | 0.38 | 0.83 | 0.84 | 38% | 0% | 58% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 13 | 20 | 67 | 27 | 36 | 28 | 99 | 0.60 | 0.27 | 77 | 0.23 | 0.07 | 1.17 | 63% | 42% | 65% |
| VEP70 SR CDF | 29 | 8 | 63 | 59 | 7 | 3 | 99 | 0.61 | 0.46 | 61 | 0.39 | 0.09 | 1.51 | 36% | 41% | 23% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 23 | 9 | 68 | 52 | 8 | 9 | 99.9 | 0.92 | 0.49 | 58 | 0.42 | 0.67 | 1.24 | 32% | 12% | 32% |
| VS61 SR CDF | 28 | 11 | 61 | 53 | 15 | 18 | 99.9 | 0.92 | 0.53 | 55 | 0.45 | 0.67 | 1.18 | 26% | 12% | 31% |
| VS70 SR CDF | 26 | 9 | 65 | 60 | 7 | 7 | 99.9 | 0.90 | 0.51 | 56 | 0.44 | 0.66 | 1.36 | 29% | 13% | 22% |
| VS80BL SR CDF | 28 | 5 | 67 | 65 | 8 | 8 | 99.9 | 1.03 | 0.56 | 52 | 0.48 | 0.82 | 1.35 | 22% | 1% | 16% |

**CHART 8: Single-Pane, 1/4
Inch (6mm), Green**



| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | | (6) % Visible Reflectance (interior) | | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | Compared to window | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|----|--------------------------------------|------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | | | | | | | | | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 34 | 5 | 61 | 67 | 7 | 7 | 84 | 1.03 | 0.61 | 48 | 0.52 | 0.84 | 1.29 | - | - | - | | |
| Window with film applied: | | | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | | | |
| V33 SR CDF | 12 | 8 | 80 | 25 | 14 | 19 | 99.9 | 1.02 | 0.44 | 62 | 0.38 | 0.84 | 0.66 | 28% | 1% | 63% | | |
| V45 SR CDF | 16 | 7 | 77 | 32 | 11 | 13 | 99.9 | 1.03 | 0.48 | 59 | 0.41 | 0.84 | 0.78 | 21% | 0% | 52% | | |
| V58 SR CDF | 21 | 6 | 73 | 44 | 9 | 9 | 99.9 | 1.03 | 0.52 | 55 | 0.45 | 0.84 | 0.98 | 15% | 0% | 34% | | |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | | | |
| V14 SR CDF | 4 | 14 | 82 | 8 | 31 | 24 | 99.9 | 1.00 | 0.35 | 71 | 0.29 | 0.80 | 0.28 | 43% | 3% | 88% | | |
| V18 SR CDF | 7 | 11 | 82 | 15 | 24 | 20 | 99.9 | 0.96 | 0.38 | 68 | 0.32 | 0.68 | 0.47 | 38% | 7% | 78% | | |
| V28 SR CDF (PS8) | 8 | 11 | 81 | 19 | 22 | 22 | 99.9 | 0.99 | 0.38 | 68 | 0.32 | 0.78 | 0.59 | 38% | 4% | 72% | | |
| V38 SR CDF (PS8) | 14 | 8 | 78 | 30 | 15 | 16 | 99.9 | 1.02 | 0.44 | 62 | 0.38 | 0.78 | 0.79 | 28% | 1% | 55% | | |
| V48 SR CDF | 16 | 6 | 78 | 35 | 10 | 10 | 99.9 | 1.03 | 0.48 | 59 | 0.41 | 0.73 | 0.85 | 21% | 0% | 48% | | |
| V33 BR SR CDF | 11 | 10 | 79 | 27 | 16 | 18 | 99.9 | 0.98 | 0.41 | 66 | 0.34 | 0.78 | 0.79 | 33% | 5% | 60% | | |
| HARMONY SERIES | | | | | | | | | | | | | | | | | | |
| V31 SR CDF | 10 | 6 | 84 | 27 | 6 | 8 | 99.9 | 0.91 | 0.40 | 66 | 0.34 | 0.60 | 0.79 | 34% | 12% | 60% | | |
| V40 SR CDF | 14 | 6 | 80 | 33 | 7 | 8 | 99.9 | 0.94 | 0.44 | 63 | 0.37 | 0.70 | 0.89 | 28% | 9% | 51% | | |
| V41 SR CDF | 14 | 6 | 80 | 35 | 6 | 7 | 99.9 | 0.94 | 0.43 | 63 | 0.37 | 0.70 | 0.95 | 30% | 9% | 48% | | |
| V50 SR CDF | 17 | 6 | 77 | 38 | 7 | 8 | 99.9 | 0.97 | 0.46 | 60 | 0.40 | 0.70 | 0.95 | 25% | 6% | 43% | | |
| V51 SR CDF | 16 | 6 | 78 | 41 | 6 | 7 | 99.9 | 0.91 | 0.45 | 62 | 0.38 | 0.61 | 1.08 | 26% | 12% | 39% | | |
| LOW-E SERIES | | | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 10 | 12 | 78 | 23 | 25 | 39 | 99.9 | 0.76 | 0.33 | 72 | 0.28 | 0.33 | 0.82 | 46% | 26% | 66% | | |
| VE50 SR CDF | 16 | 9 | 75 | 37 | 16 | 23 | 99.9 | 0.80 | 0.4 | 66 | 0.34 | 0.36 | 1.09 | 34% | 22% | 45% | | |
| EXTERIOR | | | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 5 | 65 | 30 | 10 | 65 | 36 | 99.9 | 1.02 | 0.16 | 86 | 0.14 | 0.70 | 0.71 | 74% | 1% | 85% | | |
| VNE35 ER HPR | 14 | 17 | 69 | 28 | 18 | 11 | 99.9 | 1.02 | 0.41 | 65 | 0.35 | 0.83 | 0.80 | 33% | 1% | 58% | | |
| ENERLOGIC | | | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 10 | 14 | 76 | 24 | 28 | 28 | 99 | 0.59 | 0.26 | 78 | 0.22 | 0.07 | 1.09 | 57% | 43% | 64% | | |
| VEP70 SR CDF | 22 | 6 | 72 | 52 | 7 | 3 | 99 | 0.60 | 0.40 | 66 | 0.34 | 0.09 | 1.53 | 34% | 42% | 22% | | |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 18 | 6 | 76 | 46 | 7 | 8 | 99.9 | 0.92 | 0.46 | 61 | 0.39 | 0.67 | 1.18 | 25% | 11% | 31% | | |
| VS61 SR CDF | 21 | 8 | 71 | 47 | 13 | 18 | 99.9 | 0.92 | 0.48 | 59 | 0.41 | 0.67 | 1.15 | 21% | 11% | 30% | | |
| VS70 SR CDF | 21 | 6 | 73 | 53 | 7 | 7 | 99.9 | 0.90 | 0.48 | 59 | 0.41 | 0.66 | 1.29 | 21% | 13% | 21% | | |
| VS80BL SR CDF | 22 | 5 | 73 | 57 | 7 | 7 | 99.9 | 1.03 | 0.52 | 56 | 0.44 | 0.82 | 1.30 | 15% | 0% | 15% | | |

CHART 9: Dual-Pane, 1/8 inch (3mm) Panes, Both Panes Clear



| | | | | | | | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (L-SG) | Compared to window w/n film | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|--|---|-----------------------------------|------------------------|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 70 | 13 | 17 | 81 | 15 | 15 | 44 | 0.48 | 0.88 | 24 | 0.76 | 0.84 | 1.07 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 25 | 21 | 54 | 31 | 27 | 20 | 99.9 | 0.47 | 0.62 | 47 | 0.53 | 0.84 | 0.58 | 30% | 2% | 62% |
| V45 SR CDF | 33 | 18 | 49 | 40 | 22 | 15 | 99.9 | 0.48 | 0.69 | 41 | 0.59 | 0.84 | 0.68 | 22% | 0% | 51% |
| V58 SR CDF | 45 | 15 | 40 | 53 | 18 | 12 | 99.9 | 0.48 | 0.76 | 35 | 0.65 | 0.84 | 0.82 | 14% | 0% | 35% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 7 | 43 | 50 | 11 | 52 | 24 | 99.9 | 0.48 | 0.38 | 67 | 0.33 | 0.80 | 0.33 | 57% | 0% | 86% |
| V18 SR CDF | 13 | 35 | 52 | 19 | 41 | 21 | 99.9 | 0.48 | 0.47 | 60 | 0.40 | 0.68 | 0.48 | 47% | 0% | 77% |
| V28 SR CDF (PS8) | 17 | 32 | 51 | 24 | 39 | 23 | 99.9 | 0.47 | 0.50 | 57 | 0.43 | 0.78 | 0.56 | 43% | 2% | 70% |
| V38 SR CDF (PS8) | 27 | 24 | 49 | 36 | 27 | 17 | 99.9 | 0.48 | 0.61 | 47 | 0.53 | 0.78 | 0.68 | 31% | 0% | 56% |
| V48 SR CDF | 33 | 17 | 50 | 42 | 20 | 12 | 99.9 | 0.48 | 0.69 | 40 | 0.60 | 0.73 | 0.70 | 22% | 0% | 48% |
| V33 BR SR CDF | 20 | 38 | 42 | 33 | 29 | 19 | 99.9 | 0.47 | 0.46 | 60 | 0.40 | 0.78 | 0.83 | 48% | 2% | 59% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 17 | 21 | 62 | 32 | 14 | 10 | 99.9 | 0.46 | 0.58 | 50 | 0.50 | 0.60 | 0.64 | 34% | 4% | 60% |
| V40 SR CDF | 29 | 20 | 51 | 40 | 15 | 10 | 99.9 | 0.46 | 0.63 | 45 | 0.55 | 0.70 | 0.73 | 28% | 4% | 51% |
| V41 SR CDF | 26 | 21 | 53 | 43 | 14 | 9 | 99.9 | 0.46 | 0.61 | 48 | 0.52 | 0.70 | 0.83 | 31% | 4% | 47% |
| V50 SR CDF | 34 | 22 | 44 | 48 | 16 | 11 | 99.9 | 0.46 | 0.64 | 45 | 0.55 | 0.70 | 0.87 | 27% | 4% | 41% |
| V51 SR CDF | 29 | 23 | 48 | 49 | 14 | 10 | 99.9 | 0.46 | 0.61 | 47 | 0.53 | 0.61 | 0.92 | 31% | 4% | 40% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 16 | 43 | 41 | 26 | 48 | 36 | 99.9 | 0.40 | 0.37 | 68 | 0.32 | 0.33 | 0.81 | 58% | 17% | 68% |
| VE50 SR CDF | 30 | 30 | 40 | 46 | 30 | 28 | 99.9 | 0.41 | 0.54 | 53 | 0.47 | 0.36 | 0.98 | 39% | 15% | 43% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 9 | 65 | 26 | 13 | 65 | 60 | 99.9 | 0.48 | 0.15 | 87 | 0.13 | 0.70 | 1.00 | 83% | 0% | 84% |
| VNE35 ER HPR | 28 | 19 | 53 | 34 | 20 | 21 | 99.9 | 0.48 | 0.44 | 62 | 0.38 | 0.83 | 0.89 | 50% | 0% | 58% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 17 | 43 | 40 | 30 | 48 | 29 | 99 | 0.34 | 0.35 | 70 | 0.30 | 0.07 | 1.00 | 60% | 29% | 63% |
| VEP70 SR CDF | 40 | 22 | 38 | 63 | 15 | 8 | 99 | 0.34 | 0.61 | 48 | 0.52 | 0.09 | 1.21 | 31% | 29% | 22% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 29 | 24 | 47 | 56 | 15 | 12 | 99.9 | 0.46 | 0.6 | 48 | 0.52 | 0.67 | 1.08 | 32% | 4% | 31% |
| VS61 SR CDF | 40 | 25 | 35 | 57 | 24 | 22 | 99.9 | 0.46 | 0.65 | 44 | 0.56 | 0.67 | 1.02 | 26% | 4% | 30% |
| VS70 SR CDF | 34 | 25 | 41 | 64 | 15 | 12 | 99.9 | 0.45 | 0.61 | 47 | 0.53 | 0.66 | 1.21 | 31% | 6% | 21% |
| VS80BL SR CDF | 35 | 12 | 53 | 69 | 15 | 13 | 99.9 | 0.48 | 0.74 | 37 | 0.63 | 0.82 | 1.10 | 16% | 0% | 15% |

**CHART 10: Dual-Pane, 1/4 inch (6mm)
Panels, Both Panels Clear**



| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorptance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|-------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | | | | | | | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 61 | 11 | 28 | 79 | 14 | 14 | 54 | 0.47 | 0.81 | 30 | 0.70 | 0.84 | 1.13 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 22 | 18 | 60 | 29 | 25 | 20 | 99.9 | 0.47 | 0.60 | 48 | 0.52 | 0.84 | 0.56 | 26% | 0% | 63% |
| V45 SR CDF | 28 | 15 | 57 | 38 | 21 | 15 | 99.9 | 0.47 | 0.65 | 44 | 0.56 | 0.84 | 0.68 | 20% | 0% | 52% |
| V58 SR CDF | 38 | 13 | 49 | 52 | 18 | 12 | 99.9 | 0.47 | 0.71 | 39 | 0.61 | 0.84 | 0.85 | 12% | 0% | 34% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 6 | 33 | 61 | 10 | 49 | 25 | 99.9 | 0.47 | 0.41 | 65 | 0.35 | 0.80 | 0.29 | 49% | 0% | 87% |
| V18 SR CDF | 11 | 27 | 62 | 18 | 38 | 21 | 99.9 | 0.47 | 0.48 | 59 | 0.41 | 0.68 | 0.44 | 41% | 0% | 77% |
| V28 SR CDF (PS8) | 14 | 25 | 61 | 23 | 36 | 23 | 99.9 | 0.47 | 0.50 | 57 | 0.43 | 0.78 | 0.53 | 38% | 0% | 71% |
| V38 SR CDF (PS8) | 23 | 19 | 58 | 35 | 26 | 17 | 99.9 | 0.47 | 0.59 | 49 | 0.51 | 0.78 | 0.69 | 27% | 0% | 56% |
| V48 SR CDF | 28 | 15 | 57 | 41 | 19 | 12 | 99.9 | 0.47 | 0.66 | 43 | 0.57 | 0.73 | 0.72 | 19% | 0% | 48% |
| V33 BR SR CDF | 17 | 28 | 55 | 32 | 27 | 19 | 99.9 | 0.47 | 0.49 | 58 | 0.42 | 0.78 | 0.76 | 40% | 0% | 59% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 15 | 16 | 69 | 31 | 14 | 9 | 99.9 | 0.45 | 0.57 | 51 | 0.49 | 0.60 | 0.63 | 30% | 4% | 61% |
| V40 SR CDF | 25 | 16 | 59 | 38 | 14 | 10 | 99.9 | 0.45 | 0.61 | 47 | 0.53 | 0.70 | 0.72 | 25% | 4% | 52% |
| V41 SR CDF | 22 | 16 | 62 | 41 | 13 | 9 | 99.9 | 0.45 | 0.59 | 49 | 0.51 | 0.70 | 0.80 | 27% | 4% | 48% |
| V50 SR CDF | 28 | 16 | 56 | 44 | 14 | 10 | 99.9 | 0.46 | 0.63 | 46 | 0.54 | 0.70 | 0.81 | 22% | 2% | 44% |
| V51 SR CDF | 26 | 17 | 57 | 47 | 14 | 10 | 99.9 | 0.45 | 0.6 | 48 | 0.52 | 0.61 | 0.90 | 26% | 4% | 41% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 16 | 30 | 54 | 27 | 40 | 40 | 99.9 | 0.40 | 0.42 | 64 | 0.36 | 0.33 | 0.75 | 48% | 15% | 66% |
| VE50 SR CDF | 26 | 23 | 51 | 43 | 27 | 25 | 99.9 | 0.41 | 0.54 | 54 | 0.46 | 0.36 | 0.93 | 33% | 13% | 46% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 8 | 65 | 27 | 12 | 65 | 56 | 99.9 | 0.47 | 0.15 | 87 | 0.13 | 0.70 | 0.92 | 81% | 0% | 85% |
| VNE35 ER HPR | 24 | 18 | 58 | 33 | 20 | 20 | 99.9 | 0.47 | 0.41 | 64 | 0.36 | 0.83 | 0.92 | 49% | 0% | 58% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 15 | 34 | 51 | 29 | 45 | 29 | 99 | 0.33 | 0.36 | 70 | 0.30 | 0.07 | 0.97 | 56% | 30% | 63% |
| VEP70 SR CDF | 35 | 17 | 48 | 61 | 14 | 8 | 99 | 0.34 | 0.58 | 50 | 0.50 | 0.09 | 1.22 | 28% | 28% | 23% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 26 | 18 | 56 | 54 | 15 | 12 | 99.9 | 0.45 | 0.6 | 49 | 0.51 | 0.67 | 1.06 | 26% | 4% | 32% |
| VS61 SR CDF | 35 | 20 | 45 | 55 | 23 | 22 | 99.9 | 0.45 | 0.62 | 46 | 0.54 | 0.67 | 1.02 | 23% | 4% | 30% |
| VS70 SR CDF | 30 | 18 | 52 | 61 | 14 | 12 | 99.9 | 0.45 | 0.61 | 48 | 0.52 | 0.66 | 1.17 | 25% | 4% | 23% |
| VS80BL SR CDF | 32 | 11 | 57 | 67 | 15 | 13 | 99.9 | 0.47 | 0.69 | 40 | 0.60 | 0.82 | 1.12 | 15% | 0% | 15% |

**CHART 11: 1/8 Inch (3mm) Panes, Grey
Exterior Pane, Clear Interior Pane**



| | | | | | | | | | | | | | | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 49 | 9 | 42 | 54 | 9 | 14 | 69 | 0.48 | 0.67 | 42 | 0.58 | 0.84 | 0.93 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 17 | 13 | 70 | 20 | 15 | 20 | 99.9 | 0.47 | 0.49 | 58 | 0.42 | 0.84 | 0.48 | 27% | 2% | 63% |
| V45 SR CDF | 23 | 11 | 66 | 27 | 12 | 15 | 99.9 | 0.48 | 0.52 | 54 | 0.46 | 0.84 | 0.59 | 22% | 0% | 50% |
| V58 SR CDF | 31 | 9 | 60 | 35 | 11 | 12 | 99.9 | 0.48 | 0.58 | 50 | 0.50 | 0.84 | 0.70 | 13% | 0% | 35% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 5 | 23 | 72 | 7 | 26 | 24 | 99.9 | 0.48 | 0.34 | 71 | 0.29 | 0.80 | 0.24 | 49% | 0% | 87% |
| V18 SR CDF | 9 | 19 | 72 | 13 | 21 | 21 | 99.9 | 0.48 | 0.39 | 66 | 0.34 | 0.68 | 0.38 | 42% | 0% | 76% |
| V28 SR CDF (PS8) | 11 | 18 | 71 | 16 | 20 | 23 | 99.9 | 0.47 | 0.41 | 65 | 0.35 | 0.78 | 0.46 | 39% | 2% | 70% |
| V38 SR CDF (PS8) | 19 | 14 | 67 | 24 | 15 | 17 | 99.9 | 0.48 | 0.48 | 58 | 0.42 | 0.78 | 0.57 | 28% | 0% | 56% |
| V48 SR CDF | 23 | 11 | 66 | 28 | 12 | 12 | 99.9 | 0.48 | 0.54 | 53 | 0.47 | 0.73 | 0.60 | 19% | 0% | 48% |
| V33 BR SR CDF | 14 | 21 | 65 | 22 | 16 | 19 | 99.9 | 0.47 | 0.39 | 67 | 0.33 | 0.78 | 0.67 | 42% | 2% | 59% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 12 | 13 | 75 | 22 | 9 | 9 | 99.9 | 0.46 | 0.46 | 61 | 0.39 | 0.60 | 0.56 | 31% | 4% | 59% |
| V40 SR CDF | 20 | 12 | 68 | 27 | 9 | 10 | 99.9 | 0.46 | 0.50 | 57 | 0.43 | 0.70 | 0.63 | 25% | 4% | 50% |
| V41 SR CDF | 18 | 13 | 69 | 29 | 9 | 9 | 99.9 | 0.46 | 0.48 | 59 | 0.41 | 0.70 | 0.71 | 28% | 4% | 46% |
| V50 SR CDF | 23 | 13 | 64 | 32 | 10 | 11 | 99.9 | 0.45 | 0.50 | 57 | 0.43 | 0.70 | 0.74 | 25% | 6% | 41% |
| V51 SR CDF | 20 | 14 | 66 | 33 | 9 | 10 | 99.9 | 0.46 | 0.48 | 59 | 0.41 | 0.61 | 0.80 | 28% | 4% | 39% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 11 | 23 | 66 | 17 | 24 | 36 | 99.9 | 0.40 | 0.31 | 73 | 0.27 | 0.33 | 0.63 | 54% | 17% | 69% |
| VE50 SR CDF | 21 | 17 | 62 | 30 | 16 | 28 | 99.9 | 0.41 | 0.43 | 63 | 0.37 | 0.36 | 0.81 | 36% | 15% | 44% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 6 | 65 | 29 | 8 | 65 | 33 | 99.9 | 0.48 | 0.12 | 89 | 0.11 | 0.70 | 0.73 | 82% | 0% | 85% |
| VNE35 ER HPR | 20 | 18 | 62 | 23 | 19 | 16 | 99.9 | 0.48 | 0.35 | 70 | 0.30 | 0.83 | 0.77 | 48% | 0% | 57% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 12 | 23 | 65 | 20 | 24 | 29 | 99 | 0.33 | 0.29 | 75 | 0.25 | 0.07 | 0.80 | 57% | 31% | 63% |
| VEP70 SR CDF | 28 | 13 | 59 | 42 | 9 | 7 | 99 | 0.34 | 0.46 | 60 | 0.40 | 0.09 | 1.05 | 31% | 29% | 22% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 20 | 14 | 66 | 37 | 10 | 12 | 99.9 | 0.46 | 0.47 | 59 | 0.41 | 0.67 | 0.90 | 30% | 4% | 31% |
| VS61 SR CDF | 27 | 15 | 58 | 38 | 13 | 21 | 99.9 | 0.46 | 0.51 | 56 | 0.44 | 0.67 | 0.86 | 24% | 4% | 30% |
| VS70 SR CDF | 23 | 15 | 62 | 43 | 9 | 11 | 99.9 | 0.45 | 0.48 | 58 | 0.42 | 0.66 | 1.02 | 28% | 6% | 20% |
| VS80BL SR CDF | 24 | 8 | 68 | 46 | 9 | 13 | 99.9 | 0.48 | 0.57 | 51 | 0.49 | 0.82 | 0.94 | 15% | 0% | 15% |

CHART 12: Dual-Pane, 1/4 Inch (6mm) Panes, Grey Exterior Pane, Clear Interior Pane



| | | | | | | | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (L.S.G) | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 33 | 7 | 60 | 39 | 7 | 13 | 81 | 0.47 | 0.53 | 55 | 0.45 | 0.84 | 0.87 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 12 | 8 | 80 | 15 | 10 | 19 | 99.9 | 0.47 | 0.42 | 64 | 0.36 | 0.84 | 0.42 | 21% | 0% | 62% |
| V45 SR CDF | 15 | 8 | 77 | 19 | 9 | 15 | 99.9 | 0.47 | 0.44 | 62 | 0.38 | 0.84 | 0.50 | 17% | 0% | 51% |
| V58 SR CDF | 21 | 7 | 72 | 26 | 8 | 11 | 99.9 | 0.47 | 0.47 | 59 | 0.41 | 0.84 | 0.63 | 11% | 0% | 33% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 3 | 13 | 84 | 5 | 16 | 25 | 99.9 | 0.47 | 0.32 | 73 | 0.27 | 0.80 | 0.19 | 40% | 0% | 87% |
| V18 SR CDF | 6 | 11 | 83 | 9 | 13 | 21 | 99.9 | 0.47 | 0.36 | 70 | 0.30 | 0.68 | 0.30 | 32% | 0% | 77% |
| V28 SR CDF (PS8) | 8 | 11 | 81 | 11 | 13 | 22 | 99.9 | 0.47 | 0.36 | 69 | 0.31 | 0.78 | 0.35 | 32% | 0% | 72% |
| V38 SR CDF (PS8) | 12 | 9 | 79 | 17 | 10 | 17 | 99.9 | 0.47 | 0.41 | 65 | 0.35 | 0.78 | 0.49 | 23% | 0% | 56% |
| V48 SR CDF | 15 | 7 | 78 | 20 | 8 | 11 | 99.9 | 0.47 | 0.45 | 62 | 0.38 | 0.73 | 0.53 | 15% | 0% | 49% |
| V33 BR SR CDF | 9 | 12 | 79 | 16 | 10 | 19 | 99.9 | 0.47 | 0.36 | 70 | 0.30 | 0.78 | 0.53 | 32% | 0% | 59% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 8 | 8 | 84 | 16 | 7 | 9 | 99.9 | 0.45 | 0.39 | 67 | 0.33 | 0.60 | 0.48 | 26% | 4% | 59% |
| V40 SR CDF | 13 | 8 | 79 | 19 | 7 | 10 | 99.9 | 0.45 | 0.41 | 64 | 0.36 | 0.70 | 0.53 | 23% | 4% | 51% |
| V41 SR CDF | 12 | 8 | 80 | 21 | 7 | 9 | 99.9 | 0.45 | 0.41 | 65 | 0.35 | 0.70 | 0.60 | 23% | 4% | 46% |
| V50 SR CDF | 15 | 8 | 77 | 22 | 7 | 10 | 99.9 | 0.46 | 0.42 | 64 | 0.36 | 0.70 | 0.61 | 21% | 2% | 44% |
| V51 SR CDF | 14 | 9 | 77 | 24 | 7 | 10 | 99.9 | 0.45 | 0.41 | 65 | 0.35 | 0.61 | 0.69 | 23% | 4% | 38% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 8 | 12 | 80 | 14 | 14 | 40 | 99.9 | 0.40 | 0.31 | 74 | 0.26 | 0.33 | 0.54 | 42% | 15% | 64% |
| VE50 SR CDF | 14 | 10 | 76 | 22 | 10 | 25 | 99.9 | 0.41 | 0.37 | 68 | 0.32 | 0.36 | 0.69 | 30% | 13% | 44% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 4 | 65 | 31 | 6 | 65 | 23 | 99.9 | 0.47 | 0.11 | 91 | 0.09 | 0.70 | 0.67 | 79% | 0% | 85% |
| VNE35 ER HPR | 13 | 18 | 69 | 17 | 19 | 14 | 99.9 | 0.47 | 0.3 | 75 | 0.25 | 0.83 | 0.68 | 43% | 0% | 56% |
| ENERGLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 8 | 13 | 79 | 14 | 15 | 29 | 99 | 0.33 | 0.26 | 78 | 0.22 | 0.07 | 0.64 | 51% | 30% | 64% |
| VEP70 SR CDF | 19 | 9 | 72 | 31 | 7 | 7 | 99 | 0.34 | 0.38 | 68 | 0.32 | 0.09 | 0.96 | 29% | 28% | 21% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 14 | 9 | 77 | 27 | 7 | 11 | 99.9 | 0.45 | 0.41 | 65 | 0.35 | 0.67 | 0.77 | 23% | 4% | 31% |
| VS61 SR CDF | 19 | 9 | 72 | 28 | 9 | 21 | 99.9 | 0.45 | 0.42 | 64 | 0.36 | 0.67 | 0.78 | 21% | 4% | 28% |
| VS70 SR CDF | 16 | 9 | 75 | 31 | 7 | 11 | 99.9 | 0.45 | 0.41 | 65 | 0.35 | 0.66 | 0.89 | 23% | 4% | 21% |
| VS80BL SR CDF | 17 | 6 | 77 | 33 | 7 | 12 | 99.9 | 0.47 | 0.46 | 60 | 0.40 | 0.82 | 0.83 | 13% | 0% | 15% |

CHART 13: 1/8 Inch (3mm) Panes, Bronze Exterior Pane, Clear Interior Pane



| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | | | | | | | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 54 | 9 | 37 | 61 | 10 | 14 | 68 | 0.48 | 0.72 | 37 | 0.63 | 0.84 | 0.97 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 19 | 14 | 67 | 23 | 17 | 20 | 99.9 | 0.47 | 0.52 | 55 | 0.45 | 0.84 | 0.51 | 28% | 2% | 62% |
| V45 SR CDF | 26 | 12 | 62 | 30 | 14 | 15 | 99.9 | 0.48 | 0.58 | 50 | 0.50 | 0.84 | 0.60 | 19% | 0% | 51% |
| V58 SR CDF | 35 | 10 | 55 | 40 | 12 | 12 | 99.9 | 0.48 | 0.63 | 46 | 0.54 | 0.84 | 0.74 | 13% | 0% | 34% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 6 | 27 | 67 | 8 | 31 | 24 | 99.9 | 0.48 | 0.35 | 70 | 0.30 | 0.80 | 0.27 | 51% | 0% | 87% |
| V18 SR CDF | 10 | 23 | 67 | 14 | 25 | 21 | 99.9 | 0.48 | 0.41 | 65 | 0.35 | 0.68 | 0.40 | 43% | 0% | 77% |
| V28 SR CDF (PS8) | 13 | 21 | 66 | 18 | 24 | 23 | 99.9 | 0.47 | 0.43 | 63 | 0.37 | 0.78 | 0.49 | 40% | 2% | 70% |
| V38 SR CDF (PS8) | 21 | 16 | 63 | 27 | 17 | 17 | 99.9 | 0.48 | 0.52 | 56 | 0.44 | 0.78 | 0.61 | 28% | 0% | 56% |
| V48 SR CDF | 26 | 12 | 62 | 32 | 13 | 12 | 99.9 | 0.48 | 0.58 | 50 | 0.50 | 0.73 | 0.64 | 19% | 0% | 48% |
| V33 BR SR CDF | 15 | 25 | 60 | 25 | 18 | 19 | 99.9 | 0.47 | 0.41 | 65 | 0.35 | 0.78 | 0.71 | 43% | 2% | 59% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 13 | 14 | 73 | 24 | 10 | 9 | 99.9 | 0.46 | 0.49 | 58 | 0.42 | 0.60 | 0.57 | 32% | 4% | 61% |
| V40 SR CDF | 22 | 14 | 64 | 30 | 10 | 10 | 99.9 | 0.46 | 0.53 | 54 | 0.46 | 0.70 | 0.65 | 26% | 4% | 51% |
| V41 SR CDF | 20 | 15 | 65 | 32 | 10 | 9 | 99.9 | 0.46 | 0.51 | 56 | 0.44 | 0.70 | 0.73 | 29% | 4% | 48% |
| V50 SR CDF | 26 | 15 | 59 | 36 | 11 | 11 | 99.9 | 0.45 | 0.53 | 54 | 0.46 | 0.70 | 0.78 | 26% | 6% | 41% |
| V51 SR CDF | 23 | 16 | 61 | 37 | 10 | 10 | 99.9 | 0.46 | 0.52 | 56 | 0.44 | 0.61 | 0.84 | 28% | 4% | 39% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 12 | 28 | 60 | 19 | 29 | 36 | 99.9 | 0.40 | 0.33 | 72 | 0.28 | 0.33 | 0.68 | 54% | 17% | 69% |
| VE50 SR CDF | 23 | 20 | 57 | 34 | 19 | 27 | 99.9 | 0.41 | 0.46 | 61 | 0.39 | 0.36 | 0.87 | 36% | 15% | 44% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 6 | 65 | 29 | 9 | 65 | 39 | 99.9 | 0.48 | 0.13 | 89 | 0.11 | 0.70 | 0.82 | 82% | 0% | 85% |
| VNE35 ER HPR | 22 | 18 | 60 | 26 | 19 | 17 | 99.9 | 0.48 | 0.38 | 68 | 0.32 | 0.83 | 0.81 | 47% | 0% | 57% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 13 | 28 | 59 | 22 | 29 | 29 | 99 | 0.33 | 0.30 | 74 | 0.26 | 0.07 | 0.85 | 58% | 31% | 64% |
| VEP70 SR CDF | 31 | 15 | 54 | 48 | 10 | 7 | 99 | 0.34 | 0.50 | 57 | 0.43 | 0.09 | 1.12 | 31% | 29% | 21% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 22 | 17 | 61 | 42 | 11 | 12 | 99.9 | 0.46 | 0.51 | 56 | 0.44 | 0.67 | 0.95 | 29% | 4% | 31% |
| VS61 SR CDF | 31 | 17 | 52 | 43 | 15 | 21 | 99.9 | 0.46 | 0.54 | 53 | 0.47 | 0.67 | 0.91 | 25% | 4% | 30% |
| VS70 SR CDF | 26 | 17 | 57 | 48 | 10 | 11 | 99.9 | 0.45 | 0.52 | 56 | 0.44 | 0.66 | 1.09 | 28% | 6% | 21% |
| VS80BL SR CDF | 27 | 9 | 64 | 52 | 10 | 12 | 99.9 | 0.48 | 0.61 | 47 | 0.53 | 0.82 | 0.98 | 15% | 0% | 15% |

**CHART 14: Dual-Pane, 1/4 Inch (6mm) Panes,
Bronze Exterior Pane, Clear Interior Pane**



| | | | | | | | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 38 | 7 | 55 | 47 | 8 | 12 | 81 | 0.47 | 0.58 | 50 | 0.50 | 0.84 | 0.94 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 14 | 10 | 76 | 18 | 12 | 19 | 99.9 | 0.47 | 0.45 | 61 | 0.39 | 0.84 | 0.46 | 22% | 0% | 62% |
| V45 SR CDF | 18 | 9 | 73 | 23 | 10 | 15 | 99.9 | 0.47 | 0.48 | 58 | 0.42 | 0.84 | 0.55 | 17% | 0% | 51% |
| V58 SR CDF | 24 | 8 | 68 | 31 | 9 | 11 | 99.9 | 0.47 | 0.52 | 55 | 0.45 | 0.84 | 0.69 | 10% | 0% | 34% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 4 | 16 | 80 | 6 | 21 | 24 | 99.9 | 0.47 | 0.34 | 71 | 0.29 | 0.80 | 0.21 | 41% | 0% | 87% |
| V18 SR CDF | 7 | 13 | 80 | 11 | 17 | 21 | 99.9 | 0.47 | 0.38 | 68 | 0.32 | 0.68 | 0.34 | 34% | 0% | 77% |
| V28 SR CDF (PS8) | 9 | 13 | 78 | 14 | 16 | 22 | 99.9 | 0.47 | 0.39 | 67 | 0.33 | 0.78 | 0.42 | 33% | 0% | 70% |
| V38 SR CDF (PS8) | 14 | 10 | 76 | 21 | 12 | 17 | 99.9 | 0.47 | 0.44 | 62 | 0.38 | 0.78 | 0.55 | 24% | 0% | 55% |
| V48 SR CDF | 18 | 8 | 74 | 24 | 10 | 11 | 99.9 | 0.47 | 0.49 | 58 | 0.42 | 0.73 | 0.57 | 16% | 0% | 49% |
| V33 BR SR CDF | 11 | 14 | 75 | 19 | 13 | 19 | 99.9 | 0.47 | 0.38 | 67 | 0.33 | 0.78 | 0.58 | 34% | 0% | 60% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 10 | 10 | 80 | 19 | 8 | 9 | 99.9 | 0.45 | 0.42 | 64 | 0.36 | 0.60 | 0.53 | 28% | 4% | 60% |
| V40 SR CDF | 15 | 9 | 76 | 23 | 8 | 10 | 99.9 | 0.45 | 0.45 | 61 | 0.39 | 0.70 | 0.59 | 22% | 4% | 51% |
| V41 SR CDF | 14 | 9 | 77 | 25 | 7 | 9 | 99.9 | 0.45 | 0.44 | 62 | 0.38 | 0.70 | 0.66 | 24% | 4% | 47% |
| V50 SR CDF | 18 | 9 | 73 | 27 | 8 | 10 | 99.9 | 0.46 | 0.46 | 60 | 0.40 | 0.70 | 0.68 | 21% | 2% | 43% |
| V51 SR CDF | 16 | 10 | 74 | 28 | 8 | 9 | 99.9 | 0.45 | 0.45 | 62 | 0.38 | 0.61 | 0.74 | 22% | 4% | 40% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 10 | 15 | 75 | 16 | 14 | 40 | 99.9 | 0.40 | 0.33 | 72 | 0.28 | 0.33 | 0.57 | 43% | 15% | 66% |
| VE50 SR CDF | 16 | 12 | 72 | 26 | 13 | 25 | 99.9 | 0.41 | 0.4 | 66 | 0.34 | 0.36 | 0.76 | 31% | 13% | 45% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 5 | 65 | 30 | 7 | 65 | 27 | 99.9 | 0.47 | 0.11 | 90 | 0.10 | 0.70 | 0.70 | 81% | 0% | 85% |
| VNE35 ER HPR | 15 | 18 | 67 | 20 | 19 | 14 | 99.9 | 0.47 | 0.32 | 73 | 0.27 | 0.83 | 0.74 | 45% | 0% | 57% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 9 | 16 | 75 | 17 | 19 | 29 | 99 | 0.33 | 0.28 | 76 | 0.24 | 0.07 | 0.71 | 52% | 30% | 64% |
| VEP70 SR CDF | 22 | 10 | 68 | 37 | 8 | 7 | 99 | 0.34 | 0.41 | 65 | 0.35 | 0.09 | 1.06 | 29% | 28% | 21% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 16 | 10 | 74 | 32 | 8 | 11 | 99.9 | 0.45 | 0.44 | 62 | 0.38 | 0.67 | 0.84 | 24% | 4% | 32% |
| VS61 SR CDF | 22 | 11 | 67 | 33 | 11 | 21 | 99.9 | 0.45 | 0.46 | 61 | 0.39 | 0.67 | 0.85 | 21% | 4% | 30% |
| VS70 SR CDF | 19 | 10 | 71 | 37 | 8 | 10 | 99.9 | 0.45 | 0.45 | 61 | 0.39 | 0.66 | 0.95 | 22% | 4% | 21% |
| VS80BL SR CDF | 20 | 7 | 73 | 40 | 8 | 12 | 99.9 | 0.47 | 0.51 | 57 | 0.43 | 0.82 | 0.93 | 12% | 0% | 15% |

CHART 15: 1/8 Inch (3mm) Panes, Green Exterior Pane, Clear Interior Pane



| | | | | | | | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|-------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorptance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 41 | 8 | 51 | 69 | 12 | 14 | 76 | 0.48 | 0.59 | 49 | 0.51 | 0.84 | 1.35 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 15 | 11 | 74 | 26 | 21 | 20 | 99.9 | 0.47 | 0.44 | 62 | 0.38 | 0.84 | 0.68 | 25% | 2% | 62% |
| V45 SR CDF | 20 | 10 | 70 | 34 | 17 | 15 | 99.9 | 0.47 | 0.48 | 59 | 0.41 | 0.84 | 0.83 | 19% | 2% | 51% |
| V58 SR CDF | 26 | 9 | 65 | 45 | 14 | 12 | 99.9 | 0.48 | 0.52 | 55 | 0.45 | 0.84 | 1.00 | 12% | 0% | 35% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 5 | 20 | 75 | 9 | 39 | 24 | 99.9 | 0.48 | 0.31 | 73 | 0.27 | 0.80 | 0.33 | 47% | 0% | 87% |
| V18 SR CDF | 8 | 17 | 75 | 16 | 31 | 21 | 99.9 | 0.48 | 0.36 | 69 | 0.31 | 0.68 | 0.52 | 39% | 0% | 77% |
| V28 SR CDF (PS8) | 10 | 16 | 74 | 20 | 30 | 23 | 99.9 | 0.47 | 0.37 | 68 | 0.32 | 0.78 | 0.63 | 37% | 2% | 71% |
| V38 SR CDF (PS8) | 17 | 12 | 71 | 31 | 21 | 17 | 99.9 | 0.48 | 0.44 | 62 | 0.38 | 0.78 | 0.82 | 25% | 0% | 55% |
| V48 SR CDF | 20 | 10 | 70 | 36 | 16 | 12 | 99.9 | 0.48 | 0.49 | 58 | 0.42 | 0.73 | 0.86 | 17% | 0% | 48% |
| V33 BR SR CDF | 13 | 15 | 72 | 28 | 22 | 19 | 99.9 | 0.47 | 0.38 | 68 | 0.32 | 0.78 | 0.88 | 36% | 2% | 59% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 12 | 9 | 79 | 27 | 12 | 9 | 99.9 | 0.46 | 0.43 | 63 | 0.37 | 0.60 | 0.73 | 27% | 4% | 61% |
| V40 SR CDF | 18 | 9 | 73 | 34 | 12 | 10 | 99.9 | 0.46 | 0.46 | 61 | 0.39 | 0.70 | 0.87 | 22% | 4% | 51% |
| V41 SR CDF | 17 | 9 | 74 | 36 | 11 | 9 | 99.9 | 0.46 | 0.45 | 61 | 0.39 | 0.70 | 0.92 | 24% | 4% | 48% |
| V50 SR CDF | 21 | 10 | 69 | 41 | 13 | 11 | 99.9 | 0.45 | 0.46 | 60 | 0.40 | 0.70 | 1.03 | 22% | 6% | 41% |
| V51 SR CDF | 19 | 10 | 71 | 42 | 12 | 10 | 99.9 | 0.46 | 0.46 | 61 | 0.39 | 0.61 | 1.08 | 22% | 4% | 39% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 10 | 19 | 71 | 22 | 36 | 36 | 99.9 | 0.40 | 0.3 | 75 | 0.25 | 0.33 | 0.88 | 49% | 17% | 68% |
| VE50 SR CDF | 19 | 14 | 67 | 39 | 23 | 28 | 99.9 | 0.41 | 0.4 | 66 | 0.34 | 0.36 | 1.15 | 32% | 15% | 43% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 5 | 65 | 30 | 11 | 65 | 47 | 99.9 | 0.48 | 0.12 | 90 | 0.10 | 0.70 | 1.10 | 80% | 0% | 84% |
| VNE35 ER HPR | 17 | 18 | 65 | 29 | 19 | 18 | 99.9 | 0.48 | 0.32 | 72 | 0.28 | 0.83 | 1.04 | 46% | 0% | 58% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 11 | 19 | 70 | 25 | 36 | 29 | 99 | 0.33 | 0.27 | 77 | 0.23 | 0.07 | 1.09 | 54% | 31% | 64% |
| VEP70 SR CDF | 26 | 10 | 64 | 54 | 12 | 8 | 99 | 0.34 | 0.43 | 63 | 0.37 | 0.09 | 1.46 | 27% | 29% | 22% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 20 | 10 | 70 | 48 | 13 | 12 | 99.9 | 0.46 | 0.46 | 61 | 0.39 | 0.67 | 1.23 | 22% | 4% | 30% |
| VS61 SR CDF | 25 | 12 | 63 | 49 | 19 | 22 | 99.9 | 0.46 | 0.47 | 60 | 0.40 | 0.67 | 1.23 | 20% | 4% | 29% |
| VS70 SR CDF | 24 | 10 | 66 | 54 | 12 | 12 | 99.9 | 0.45 | 0.47 | 60 | 0.40 | 0.66 | 1.35 | 20% | 6% | 22% |
| VS80BL SR CDF | 25 | 8 | 67 | 59 | 13 | 13 | 99.9 | 0.48 | 0.52 | 55 | 0.45 | 0.82 | 1.31 | 12% | 0% | 14% |

**CHART 16: Dual-Pane, 1/4 Inch (6mm) Panes,
Green Exterior Pane, Clear Interior Pane**



| | | | | | | | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 29 | 6 | 65 | 60 | 11 | 14 | 87 | 0.47 | 0.47 | 60 | 0.40 | 0.84 | 1.50 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 10 | 9 | 81 | 22 | 17 | 20 | 99.9 | 0.47 | 0.37 | 68 | 0.32 | 0.84 | 0.69 | 21% | 0% | 63% |
| V45 SR CDF | 13 | 8 | 79 | 29 | 14 | 15 | 99.9 | 0.47 | 0.40 | 66 | 0.34 | 0.84 | 0.85 | 15% | 0% | 52% |
| V58 SR CDF | 18 | 7 | 75 | 39 | 13 | 12 | 99.9 | 0.47 | 0.42 | 64 | 0.36 | 0.84 | 1.08 | 11% | 0% | 35% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 3 | 13 | 84 | 8 | 30 | 24 | 99.9 | 0.47 | 0.29 | 76 | 0.24 | 0.80 | 0.33 | 38% | 0% | 87% |
| V18 SR CDF | 6 | 11 | 83 | 14 | 24 | 21 | 99.9 | 0.47 | 0.32 | 73 | 0.27 | 0.68 | 0.52 | 32% | 0% | 77% |
| V28 SR CDF (PS8) | 7 | 11 | 82 | 18 | 23 | 23 | 99.9 | 0.47 | 0.33 | 72 | 0.28 | 0.78 | 0.64 | 30% | 0% | 70% |
| V38 SR CDF (PS8) | 12 | 9 | 79 | 27 | 17 | 17 | 99.9 | 0.47 | 0.37 | 68 | 0.32 | 0.78 | 0.84 | 21% | 0% | 55% |
| V48 SR CDF | 14 | 7 | 79 | 31 | 13 | 12 | 99.9 | 0.47 | 0.40 | 66 | 0.34 | 0.73 | 0.91 | 15% | 0% | 48% |
| V33 BR SR CDF | 9 | 10 | 81 | 24 | 18 | 19 | 99.9 | 0.47 | 0.34 | 71 | 0.29 | 0.78 | 0.83 | 28% | 0% | 60% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 9 | 7 | 84 | 24 | 10 | 9 | 99.9 | 0.45 | 0.37 | 69 | 0.31 | 0.60 | 0.77 | 21% | 4% | 60% |
| V40 SR CDF | 12 | 7 | 81 | 29 | 10 | 10 | 99.9 | 0.45 | 0.38 | 67 | 0.33 | 0.70 | 0.88 | 19% | 4% | 52% |
| V41 SR CDF | 12 | 7 | 81 | 31 | 10 | 9 | 99.9 | 0.45 | 0.38 | 67 | 0.33 | 0.70 | 0.94 | 19% | 4% | 48% |
| V50 SR CDF | 14 | 7 | 79 | 34 | 10 | 10 | 99.9 | 0.46 | 0.39 | 66 | 0.34 | 0.70 | 1.00 | 17% | 2% | 43% |
| V51 SR CDF | 14 | 7 | 79 | 36 | 10 | 10 | 99.9 | 0.45 | 0.39 | 67 | 0.33 | 0.61 | 1.09 | 17% | 4% | 40% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 8 | 12 | 80 | 21 | 25 | 40 | 99.9 | 0.40 | 0.29 | 75 | 0.25 | 0.33 | 0.84 | 38% | 15% | 65% |
| VE50 SR CDF | 14 | 9 | 77 | 33 | 18 | 25 | 99.9 | 0.41 | 0.35 | 70 | 0.30 | 0.36 | 1.10 | 26% | 13% | 45% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 4 | 65 | 31 | 9 | 65 | 37 | 99.9 | 0.47 | 0.11 | 91 | 0.09 | 0.70 | 1.00 | 77% | 0% | 85% |
| VNE35 ER HPR | 12 | 18 | 70 | 25 | 19 | 16 | 99.9 | 0.47 | 0.27 | 76 | 0.24 | 0.83 | 1.04 | 43% | 0% | 58% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 8 | 13 | 79 | 22 | 29 | 29 | 99 | 0.33 | 0.24 | 79 | 0.21 | 0.07 | 1.05 | 49% | 30% | 63% |
| VEP70 SR CDF | 19 | 7 | 74 | 46 | 10 | 7 | 99 | 0.34 | 0.36 | 70 | 0.30 | 0.09 | 1.53 | 23% | 28% | 23% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 15 | 7 | 78 | 41 | 11 | 12 | 99.9 | 0.45 | 0.39 | 66 | 0.34 | 0.67 | 1.21 | 17% | 4% | 32% |
| VS61 SR CDF | 18 | 8 | 74 | 42 | 15 | 21 | 99.9 | 0.45 | 0.39 | 67 | 0.33 | 0.67 | 1.27 | 17% | 4% | 30% |
| VS70 SR CDF | 18 | 7 | 75 | 47 | 11 | 11 | 99.9 | 0.45 | 0.4 | 66 | 0.34 | 0.66 | 1.38 | 15% | 4% | 22% |
| VS80BL SR CDF | 19 | 6 | 75 | 51 | 11 | 12 | 99.9 | 0.47 | 0.43 | 63 | 0.37 | 0.82 | 1.38 | 9% | 0% | 15% |

CHART 17: Dual-Pane, 1/8 Inch (3mm) Panes, Exterior Pane Low-E on #2 Surface, Clear Interior Pane



| | | | | | | | | | Compared to window w/o film | | | | | | | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|-----------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|--|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction | |
| Window without film applied: | 60 | 15 | 25 | 76 | 17 | 17 | 52 | 0.35 | 0.76 | 34 | 0.66 | 0.22 | 1.15 | - | - | - | |
| Window with film applied: | NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 21 | 21 | 58 | 28 | 27 | 21 | 99.9 | 0.35 | 0.59 | 49 | 0.51 | 0.22 | 0.55 | 22% | 0% | 63% | |
| V45 SR CDF | 28 | 18 | 54 | 37 | 23 | 15 | 99.9 | 0.35 | 0.64 | 45 | 0.55 | 0.22 | 0.67 | 16% | 0% | 51% | |
| V58 SR CDF | 38 | 16 | 46 | 29 | 17 | 13 | 99.9 | 0.35 | 0.68 | 41 | 0.59 | 0.22 | 0.49 | 11% | 0% | 62% | |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | | |
| V14 SR CDF | 7 | 37 | 56 | 10 | 49 | 25 | 99.9 | 0.35 | 0.39 | 66 | 0.34 | 0.22 | 0.29 | 49% | 0% | 87% | |
| V18 SR CDF | 12 | 31 | 57 | 18 | 39 | 21 | 99.9 | 0.35 | 0.47 | 60 | 0.40 | 0.22 | 0.45 | 38% | 0% | 76% | |
| V28 SR CDF (PS8) | 15 | 29 | 56 | 22 | 37 | 23 | 99.9 | 0.35 | 0.49 | 58 | 0.42 | 0.22 | 0.52 | 36% | 0% | 71% | |
| V38 SR CDF (PS8) | 24 | 23 | 53 | 34 | 27 | 18 | 99.9 | 0.35 | 0.58 | 50 | 0.50 | 0.22 | 0.68 | 24% | 0% | 55% | |
| V48 SR CDF | 29 | 18 | 53 | 39 | 21 | 13 | 99.9 | 0.35 | 0.65 | 44 | 0.56 | 0.22 | 0.70 | 14% | 0% | 49% | |
| V33 BR SR CDF | 18 | 32 | 50 | 31 | 29 | 19 | 99.9 | 0.35 | 0.46 | 60 | 0.40 | 0.22 | 0.78 | 39% | 0% | 59% | |
| HARMONY SERIES | | | | | | | | | | | | | | | | | |
| V31 SR CDF | 16 | 19 | 65 | 30 | 16 | 10 | 99.9 | 0.34 | 0.58 | 50 | 0.50 | 0.22 | 0.60 | 24% | 3% | 61% | |
| V40 SR CDF | 26 | 19 | 55 | 37 | 17 | 11 | 99.9 | 0.34 | 0.61 | 47 | 0.53 | 0.22 | 0.70 | 20% | 3% | 51% | |
| V41 SR CDF | 23 | 19 | 58 | 40 | 15 | 10 | 99.9 | 0.34 | 0.60 | 48 | 0.52 | 0.22 | 0.77 | 21% | 3% | 47% | |
| V50 SR CDF | 30 | 20 | 50 | 45 | 18 | 12 | 99.9 | 0.33 | 0.61 | 47 | 0.53 | 0.22 | 0.85 | 20% | 6% | 41% | |
| V51 SR CDF | 27 | 20 | 53 | 46 | 16 | 11 | 99.9 | 0.34 | 0.60 | 49 | 0.51 | 0.22 | 0.90 | 21% | 3% | 39% | |
| LOW-E SERIES | | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 14 | 37 | 49 | 24 | 45 | 36 | 99.9 | 0.30 | 0.38 | 68 | 0.32 | 0.22 | 0.75 | 50% | 14% | 68% | |
| VE50 SR CDF | 27 | 27 | 46 | 43 | 29 | 29 | 99.9 | 0.31 | 0.52 | 55 | 0.45 | 0.22 | 0.96 | 32% | 11% | 43% | |
| EXTERIOR | | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 9 | 65 | 26 | 13 | 65 | 60 | 99.9 | 0.35 | 0.14 | 88 | 0.12 | 0.22 | 1.08 | 82% | 0% | 83% | |
| VNE35 ER HPR | 28 | 19 | 53 | 34 | 20 | 21 | 99.9 | 0.35 | 0.41 | 64 | 0.36 | 0.22 | 0.94 | 46% | 0% | 55% | |
| ENERLOGIC | | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 16 | 37 | 47 | 28 | 46 | 30 | 99 | 0.26 | 0.36 | 69 | 0.31 | 0.07 | 0.90 | 53% | 26% | 63% | |
| VEP70 SR CDF | 36 | 20 | 44 | 59 | 16 | 10 | 99 | 0.26 | 0.59 | 49 | 0.51 | 0.09 | 1.16 | 22% | 26% | 22% | |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 27 | 22 | 51 | 52 | 17 | 13 | 99.9 | 0.34 | 0.58 | 50 | 0.50 | 0.22 | 1.04 | 24% | 3% | 32% | |
| VS61 SR CDF | 35 | 23 | 42 | 53 | 24 | 23 | 99.9 | 0.34 | 0.60 | 48 | 0.52 | 0.22 | 1.02 | 21% | 3% | 30% | |
| VS70 SR CDF | 31 | 22 | 47 | 59 | 17 | 14 | 99.9 | 0.34 | 0.59 | 49 | 0.51 | 0.22 | 1.16 | 22% | 3% | 22% | |
| VS80BL SR CDF | 31 | 14 | 55 | 64 | 17 | 15 | 99.9 | 0.35 | 0.69 | 41 | 0.59 | 0.22 | 1.08 | 9% | 0% | 16% | |

CHART 18: Dual-Pane, 1/4 Inch (6mm) Panes, Exterior Pane Low-E on #2 Surface, Clear Interior Pane



| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorbance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | | | | | | | | | | | | | | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 52 | 13 | 35 | 73 | 16 | 17 | 60 | 0.35 | 0.71 | 38 | 0.62 | 0.22 | 1.18 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 19 | 18 | 63 | 27 | 25 | 20 | 99.9 | 0.35 | 0.57 | 51 | 0.49 | 0.22 | 0.55 | 20% | 0% | 63% |
| V45 SR CDF | 24 | 16 | 60 | 36 | 22 | 16 | 99.9 | 0.35 | 0.61 | 47 | 0.53 | 0.22 | 0.68 | 14% | 0% | 51% |
| V58 SR CDF | 33 | 15 | 52 | 48 | 19 | 13 | 99.9 | 0.35 | 0.65 | 44 | 0.56 | 0.22 | 0.86 | 8% | 0% | 34% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 6 | 30 | 64 | 10 | 46 | 25 | 99.9 | 0.35 | 0.41 | 65 | 0.35 | 0.22 | 0.29 | 42% | 0% | 86% |
| V18 SR CDF | 10 | 25 | 65 | 17 | 37 | 21 | 99.9 | 0.35 | 0.47 | 59 | 0.41 | 0.22 | 0.41 | 34% | 0% | 77% |
| V28 SR CDF (PS8) | 13 | 24 | 63 | 22 | 35 | 23 | 99.9 | 0.34 | 0.49 | 58 | 0.42 | 0.22 | 0.52 | 31% | 3% | 70% |
| V38 SR CDF (PS8) | 20 | 19 | 61 | 33 | 26 | 18 | 99.9 | 0.35 | 0.56 | 51 | 0.49 | 0.22 | 0.67 | 21% | 0% | 55% |
| V48 SR CDF | 25 | 16 | 59 | 38 | 20 | 12 | 99.9 | 0.35 | 0.61 | 47 | 0.53 | 0.22 | 0.72 | 14% | 0% | 48% |
| V33 BR SR CDF | 16 | 25 | 59 | 30 | 27 | 19 | 99.9 | 0.34 | 0.48 | 59 | 0.41 | 0.22 | 0.73 | 32% | 3% | 59% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 14 | 15 | 71 | 29 | 16 | 10 | 99.9 | 0.33 | 0.57 | 51 | 0.49 | 0.22 | 0.59 | 20% | 6% | 60% |
| V40 SR CDF | 22 | 15 | 63 | 36 | 16 | 11 | 99.9 | 0.34 | 0.59 | 49 | 0.51 | 0.22 | 0.71 | 17% | 3% | 51% |
| V41 SR CDF | 21 | 16 | 63 | 38 | 15 | 10 | 99.9 | 0.33 | 0.58 | 50 | 0.50 | 0.22 | 0.76 | 18% | 6% | 48% |
| V50 SR CDF | 26 | 15 | 59 | 41 | 16 | 11 | 99.9 | 0.34 | 0.60 | 48 | 0.52 | 0.22 | 0.79 | 15% | 3% | 44% |
| V51 SR CDF | 24 | 16 | 60 | 44 | 16 | 11 | 99.9 | 0.33 | 0.58 | 49 | 0.51 | 0.22 | 0.86 | 18% | 6% | 40% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 14 | 28 | 58 | 26 | 39 | 40 | 99.9 | 0.30 | 0.42 | 64 | 0.36 | 0.22 | 0.72 | 41% | 14% | 64% |
| VE50 SR CDF | 24 | 21 | 55 | 41 | 27 | 26 | 99.9 | 0.31 | 0.52 | 55 | 0.45 | 0.22 | 0.91 | 27% | 11% | 44% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 8 | 65 | 27 | 12 | 65 | 57 | 99.9 | 0.35 | 0.13 | 89 | 0.11 | 0.22 | 1.09 | 82% | 0% | 84% |
| VNE35 ER HPR | 24 | 19 | 57 | 33 | 20 | 20 | 99.9 | 0.35 | 0.39 | 67 | 0.33 | 0.22 | 1.00 | 45% | 0% | 55% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 14 | 30 | 56 | 27 | 44 | 29 | 99 | 0.26 | 0.37 | 69 | 0.31 | 0.07 | 0.87 | 48% | 26% | 63% |
| VEP70 SR CDF | 32 | 16 | 52 | 57 | 16 | 9 | 99 | 0.26 | 0.56 | 52 | 0.48 | 0.09 | 1.19 | 21% | 26% | 22% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 24 | 17 | 59 | 50 | 16 | 13 | 99.9 | 0.33 | 0.58 | 50 | 0.50 | 0.22 | 1.00 | 18% | 6% | 32% |
| VS61 SR CDF | 31 | 19 | 50 | 52 | 23 | 23 | 99.9 | 0.34 | 0.58 | 50 | 0.50 | 0.22 | 1.04 | 18% | 3% | 29% |
| VS70 SR CDF | 28 | 17 | 55 | 57 | 16 | 13 | 99.9 | 0.33 | 0.58 | 49 | 0.51 | 0.22 | 1.12 | 18% | 6% | 22% |
| VS80BL SR CDF | 29 | 13 | 58 | 62 | 16 | 15 | 99.9 | 0.35 | 0.65 | 44 | 0.56 | 0.22 | 1.11 | 8% | 0% | 15% |

CHART 19: Dual-Pane, 1/8 Inch (3mm) Panes, Exterior Pane High Performance Low-E on #2 Surface, Clear Interior Pane



| | | | | | | | | | | | | | | Compared to window w/o film | | |
|------------------------------|---------------------------------|-------------------------------|-------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorptance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 38 | 35 | 27 | 72 | 11 | 12 | 84 | 0.30 | 0.48 | 58 | 0.42 | 0.04 | 1.71 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 14 | 39 | 47 | 27 | 20 | 20 | 99.9 | 0.29 | 0.38 | 67 | 0.33 | 0.04 | 0.82 | 21% | 3% | 63% |
| V45 SR CDF | 18 | 37 | 45 | 35 | 16 | 14 | 99.9 | 0.30 | 0.41 | 64 | 0.36 | 0.04 | 0.97 | 15% | 0% | 51% |
| V58 SR CDF | 24 | 36 | 40 | 46 | 13 | 11 | 99.9 | 0.30 | 0.44 | 62 | 0.38 | 0.04 | 1.21 | 8% | 0% | 36% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 5 | 47 | 48 | 9 | 39 | 24 | 99.9 | 0.30 | 0.27 | 77 | 0.23 | 0.04 | 0.39 | 44% | 0% | 88% |
| V18 SR CDF | 8 | 43 | 49 | 16 | 31 | 21 | 99.9 | 0.30 | 0.32 | 73 | 0.27 | 0.04 | 0.59 | 33% | 0% | 78% |
| V28 SR CDF (PS8) | 10 | 42 | 48 | 21 | 29 | 22 | 99.9 | 0.29 | 0.33 | 72 | 0.28 | 0.04 | 0.75 | 31% | 3% | 71% |
| V38 SR CDF (PS8) | 16 | 39 | 45 | 32 | 20 | 17 | 99.9 | 0.30 | 0.38 | 67 | 0.33 | 0.04 | 0.97 | 21% | 0% | 56% |
| V48 SR CDF | 19 | 36 | 45 | 37 | 15 | 11 | 99.9 | 0.30 | 0.42 | 64 | 0.36 | 0.04 | 1.03 | 13% | 0% | 49% |
| V33 BR SR CDF | 14 | 42 | 44 | 29 | 22 | 19 | 99.9 | 0.29 | 0.34 | 70 | 0.30 | 0.04 | 0.97 | 29% | 3% | 60% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 12 | 35 | 53 | 28 | 10 | 9 | 99.9 | 0.29 | 0.42 | 64 | 0.36 | 0.04 | 0.78 | 13% | 3% | 61% |
| V40 SR CDF | 18 | 35 | 47 | 35 | 11 | 9 | 99.9 | 0.29 | 0.43 | 63 | 0.37 | 0.04 | 0.95 | 10% | 3% | 51% |
| V41 SR CDF | 18 | 35 | 47 | 38 | 10 | 8 | 99.9 | 0.29 | 0.43 | 63 | 0.37 | 0.04 | 1.03 | 10% | 3% | 47% |
| V50 SR CDF | 21 | 36 | 43 | 43 | 12 | 10 | 99.9 | 0.28 | 0.42 | 63 | 0.37 | 0.04 | 1.16 | 13% | 7% | 40% |
| V51 SR CDF | 20 | 35 | 45 | 43 | 10 | 9 | 99.9 | 0.29 | 0.43 | 63 | 0.37 | 0.04 | 1.16 | 10% | 3% | 40% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 11 | 46 | 43 | 22 | 36 | 36 | 99.9 | 0.26 | 0.27 | 77 | 0.23 | 0.04 | 0.96 | 44% | 13% | 69% |
| VE50 SR CDF | 20 | 40 | 40 | 40 | 22 | 27 | 99.9 | 0.26 | 0.36 | 68 | 0.32 | 0.04 | 1.25 | 25% | 13% | 44% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 9 | 65 | 26 | 13 | 65 | 60 | 99.9 | 0.30 | 0.13 | 88 | 0.12 | 0.04 | 1.08 | 73% | 0% | 82% |
| VNE35 ER HPR | 29 | 19 | 52 | 34 | 20 | 21 | 99.9 | 0.30 | 0.41 | 65 | 0.35 | 0.04 | 0.97 | 15% | 0% | 53% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 12 | 46 | 42 | 26 | 36 | 29 | 99 | 0.22 | 0.26 | 77 | 0.23 | 0.04 | 1.13 | 46% | 27% | 64% |
| VEP70 SR CDF | 27 | 35 | 38 | 56 | 11 | 6 | 99 | 0.23 | 0.42 | 63 | 0.37 | 0.04 | 1.51 | 13% | 23% | 22% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 22 | 36 | 42 | 49 | 11 | 11 | 99.9 | 0.29 | 0.43 | 63 | 0.37 | 0.04 | 1.32 | 10% | 3% | 32% |
| VS61 SR CDF | 25 | 38 | 37 | 50 | 18 | 20 | 99.9 | 0.29 | 0.41 | 65 | 0.35 | 0.04 | 1.43 | 15% | 3% | 31% |
| VS70 SR CDF | 25 | 35 | 40 | 56 | 11 | 10 | 99.9 | 0.28 | 0.44 | 62 | 0.38 | 0.04 | 1.47 | 8% | 7% | 22% |
| VS80BL SR CDF | 26 | 35 | 39 | 61 | 11 | 11 | 99.9 | 0.30 | 0.45 | 61 | 0.39 | 0.04 | 1.56 | 6% | 0% | 15% |

CHART 20: Dual-Pane, 1/4 Inch (6mm) Panes, Exterior Pane High



| | | | | | | | | | | | | | Compared to window w/o film | | | |
|------------------------------|---------------------------------|-------------------------------|-------------------------------|-----------------------------|--------------------------------------|--------------------------------------|-------------------|--------------------|--------------------------|------------------------------------|---|-----------------|---|---|-----------------------------------|------------------------|
| | (1) % Total Solar Transmittance | (2) % Total Solar Reflectance | (3) % Total Solar Absorptance | (4) % Visible Transmittance | (5) % Visible Reflectance (exterior) | (6) % Visible Reflectance (interior) | (7) % UV Rejected | (8) Winter U-value | (10) Shading Coefficient | (11) % Total Solar Energy Rejected | (12) Solar Heat Gain Coefficient (SHGC) | (13) Emissivity | (14) Light to Solar Heat Gain Ratio (LSG) | (15) % Summer Solar Heat Gain Reduction | (16) % Winter Heat Loss Reduction | (17) % Glare Reduction |
| Window without film applied: | 34 | 28 | 38 | 69 | 10 | 11 | 86 | 0.29 | 0.46 | 60 | 0.40 | 0.04 | 1.73 | - | - | - |
| Window with film applied: | | | | | | | | | | | | | | | | |
| NEUTRALS | | | | | | | | | | | | | | | | |
| V33 SR CDF | 12 | 32 | 56 | 26 | 19 | 19 | 99.9 | 0.29 | 0.38 | 67 | 0.33 | 0.04 | 0.79 | 17% | 0% | 62% |
| V45 SR CDF | 16 | 30 | 54 | 33 | 15 | 14 | 99.9 | 0.29 | 0.40 | 65 | 0.35 | 0.04 | 0.94 | 13% | 0% | 52% |
| V58 SR CDF | 22 | 30 | 48 | 46 | 13 | 11 | 99.9 | 0.29 | 0.43 | 63 | 0.37 | 0.04 | 1.24 | 7% | 0% | 33% |
| DUAL REFLECTIVES | | | | | | | | | | | | | | | | |
| V14 SR CDF | 4 | 39 | 57 | 9 | 37 | 24 | 99.9 | 0.29 | 0.28 | 76 | 0.24 | 0.04 | 0.38 | 39% | 0% | 87% |
| V18 SR CDF | 7 | 36 | 57 | 16 | 29 | 21 | 99.9 | 0.29 | 0.32 | 72 | 0.28 | 0.04 | 0.57 | 30% | 0% | 77% |
| V28 SR CDF (PS8) | 9 | 35 | 56 | 20 | 27 | 22 | 99.9 | 0.29 | 0.33 | 71 | 0.29 | 0.04 | 0.69 | 28% | 0% | 71% |
| V38 SR CDF (PS8) | 15 | 32 | 53 | 31 | 19 | 17 | 99.9 | 0.29 | 0.38 | 67 | 0.33 | 0.04 | 0.94 | 17% | 0% | 55% |
| V48 SR CDF | 17 | 30 | 53 | 36 | 14 | 11 | 99.9 | 0.29 | 0.41 | 64 | 0.36 | 0.04 | 1.00 | 11% | 0% | 48% |
| V33 BR SR CDF | 12 | 34 | 54 | 28 | 20 | 18 | 99.9 | 0.29 | 0.35 | 70 | 0.30 | 0.04 | 0.93 | 24% | 0% | 59% |
| HARMONY SERIES | | | | | | | | | | | | | | | | |
| V31 SR CDF | 11 | 28 | 61 | 27 | 10 | 9 | 99.9 | 0.28 | 0.41 | 65 | 0.35 | 0.04 | 0.77 | 11% | 3% | 61% |
| V40 SR CDF | 16 | 29 | 55 | 34 | 10 | 9 | 99.9 | 0.28 | 0.42 | 64 | 0.36 | 0.04 | 0.94 | 9% | 3% | 51% |
| V41 SR CDF | 16 | 28 | 56 | 36 | 10 | 8 | 99.9 | 0.28 | 0.42 | 64 | 0.36 | 0.04 | 1.00 | 9% | 3% | 48% |
| V50 SR CDF | 18 | 29 | 53 | 39 | 10 | 9 | 99.9 | 0.29 | 0.42 | 64 | 0.36 | 0.04 | 1.08 | 9% | 0% | 43% |
| V51 SR CDF | 19 | 29 | 52 | 42 | 10 | 9 | 99.9 | 0.28 | 0.42 | 64 | 0.36 | 0.04 | 1.17 | 9% | 3% | 39% |
| LOW-E SERIES | | | | | | | | | | | | | | | | |
| VE35 SR CDF | 11 | 37 | 52 | 24 | 30 | 40 | 99.9 | 0.26 | 0.30 | 74 | 0.26 | 0.04 | 0.92 | 35% | 10% | 65% |
| VE50 SR CDF | 18 | 33 | 49 | 38 | 20 | 24 | 99.9 | 0.27 | 0.36 | 68 | 0.32 | 0.04 | 1.19 | 22% | 7% | 45% |
| EXTERIOR | | | | | | | | | | | | | | | | |
| VRE20 ER HPR | 8 | 65 | 27 | 13 | 65 | 59 | 99.9 | 0.29 | 0.13 | 89 | 0.11 | 0.04 | 1.18 | 72% | 0% | 81% |
| VNE35 ER HPR | 27 | 19 | 54 | 34 | 20 | 20 | 99.9 | 0.29 | 0.38 | 67 | 0.33 | 0.04 | 1.03 | 17% | 0% | 51% |
| ENERLOGIC | | | | | | | | | | | | | | | | |
| VEP35 SR CDF | 11 | 38 | 51 | 25 | 34 | 29 | 99 | 0.22 | 0.27 | 77 | 0.23 | 0.04 | 1.09 | 41% | 24% | 64% |
| VEP70 SR CDF | 25 | 29 | 46 | 54 | 10 | 6 | 99 | 0.23 | 0.41 | 65 | 0.35 | 0.04 | 1.54 | 11% | 21% | 22% |
| SPECTRALLY SELECTIVE | | | | | | | | | | | | | | | | |
| VS60 SR CDF | 20 | 29 | 51 | 47 | 11 | 11 | 99.9 | 0.28 | 0.42 | 64 | 0.36 | 0.04 | 1.31 | 9% | 3% | 32% |
| VS61 SR CDF | 23 | 31 | 46 | 48 | 17 | 20 | 99.9 | 0.28 | 0.40 | 65 | 0.35 | 0.04 | 1.37 | 13% | 3% | 30% |
| VS70 SR CDF | 23 | 29 | 48 | 54 | 10 | 10 | 99.9 | 0.28 | 0.43 | 63 | 0.37 | 0.04 | 1.46 | 7% | 3% | 22% |
| VS80BL SR CDF | 24 | 28 | 48 | 59 | 11 | 11 | 99.9 | 0.29 | 0.44 | 62 | 0.38 | 0.04 | 1.55 | 4% | 0% | 14% |