



Hanita Architectural Films on 3mm (1/8") Clear Single Pane

| | Visible Light Transmitted % | Visible Light Reflected (Int) % | Visible Light Reflected (Ext) % | UV Block % | Total Solar Energy Reflected % | Total Solar Energy Transmitted % | Total Solar Energy Absorbed % | Shading Coefficient | Total Solar Energy Rejected % | Solar Heat Gain Coefficient | Emissivity (Room side) | U-Value Winter [IP] | U-Value Winter [SI] | Glare Reduction % | Luminous Efficacy |
|--|-----------------------------|---------------------------------|---------------------------------|------------|--------------------------------|----------------------------------|-------------------------------|---------------------|-------------------------------|-----------------------------|------------------------|---------------------|---------------------|-------------------|-------------------|
| Glazing 3mm (1/8") clear single pane | 90 | 9 | 9 | 30 | 8 | 84 | 8 | 0.99 | 14 | 0.86 | 0.84 | 1.04 | 5.92 | | |
| Reflective Films Interior | | | | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | | | | |
| Silver 20 | 18 | 62 | 61 | 99 | 55 | 13 | 32 | 0.25 | 78 | 0.22 | 0.71 | 0.97 | 5.51 | 80 | 0.72 |
| Silver 35 | 33 | 41 | 42 | 99 | 39 | 25 | 36 | 0.40 | 65 | 0.35 | 0.72 | 0.98 | 5.57 | 63 | 0.83 |
| Silver 50 | 51 | 23 | 24 | 97 | 24 | 39 | 37 | 0.58 | 50 | 0.50 | 0.81 | 1.02 | 5.78 | 44 | 0.88 |
| Silver Matte | 19 | | 56 | 99 | 50 | 14 | 36 | 0.28 | 76 | 0.24 | 0.73 | 0.97 | 5.54 | 79 | 0.68 |
| Solar Bronze | | | | | | | | | | | | | | | |
| Solar Bronze 20 | 17 | 45 | 40 | 99 | 53 | 9 | 38 | 0.23 | 81 | 0.19 | 0.69 | 0.96 | 5.45 | 81 | 0.74 |
| Solar Bronze 35 | 33 | 29 | 30 | 99 | 44 | 21 | 35 | 0.35 | 70 | 0.30 | 0.70 | 0.97 | 5.51 | 63 | 0.94 |
| Low-E | | | | | | | | | | | | | | | |
| Silver 20, Low-E | 17 | 63 | 56 | 99 | 51 | 12 | 37 | 0.24 | 80 | 0.20 | 0.39 | 0.79 | 4.49 | 81 | 0.71 |
| Silver 35, Low-E | 27 | 49 | 44 | 99 | 41 | 19 | 40 | 0.33 | 72 | 0.28 | 0.45 | 0.83 | 4.71 | 70 | 0.82 |
| Neutral Films Interior | | | | | | | | | | | | | | | |
| Cold Steel | | | | | | | | | | | | | | | |
| Cold Steel 20 | 22 | 24 | 25 | 99 | 29 | 14 | 57 | 0.36 | 70 | 0.30 | 0.76 | 1.00 | 5.68 | 76 | 0.62 |
| Cold Steel 35 | 40 | 15 | 17 | 99 | 17 | 29 | 54 | 0.52 | 55 | 0.45 | 0.82 | 1.03 | 5.85 | 56 | 0.77 |
| Cold Steel 50 | 51 | 16 | 18 | 99 | 20 | 40 | 40 | 0.60 | 48 | 0.52 | 0.84 | 1.04 | 5.91 | 43 | 0.85 |
| Cold Steel 70 | 68 | 9 | 10 | 99 | 10 | 59 | 31 | 0.79 | 31 | 0.69 | 0.91 | 1.08 | 6.13 | 25 | 0.86 |
| Natura | | | | | | | | | | | | | | | |
| Natura 15 | 17 | 15 | 13 | 99 | 14 | 15 | 71 | 0.43 | 63 | 0.37 | 0.85 | 1.05 | 5.94 | 81 | 0.40 |
| Natura 28 | 31 | 9 | 14 | 99 | 15 | 33 | 52 | 0.56 | 52 | 0.48 | 0.87 | 1.05 | 6.00 | 65 | 0.55 |
| Dual Reflective Films Interior | | | | | | | | | | | | | | | |
| OptiTune | | | | | | | | | | | | | | | |
| OptiTune 05 | 6 | 15 | 63 | 99 | 56 | 6 | 38 | 0.19 | 84 | 0.16 | 0.75 | 0.99 | 5.62 | 93 | 0.32 |
| OptiTune 15 | 13 | 25 | 56 | 99 | 51 | 12 | 37 | 0.26 | 78 | 0.22 | 0.76 | 1.00 | 5.68 | 85 | 0.50 |
| OptiTune 22 | 21 | 15 | 32 | 99 | 31 | 18 | 51 | 0.38 | 67 | 0.33 | 0.80 | 1.02 | 5.79 | 77 | 0.55 |
| OptiTune 30 | 32 | 26 | 32 | 99 | 32 | 25 | 43 | 0.44 | 63 | 0.37 | 0.81 | 1.03 | 5.85 | 63 | 0.73 |
| OptiTune 40 | 41 | 18 | 21 | 99 | 22 | 33 | 45 | 0.54 | 54 | 0.46 | 0.83 | 1.04 | 5.91 | 54 | 0.76 |
| Titan Duo | | | | | | | | | | | | | | | |
| Titan Duo 05 | 7 | 18 | 59 | 99 | 53 | 7 | 40 | 0.21 | 82 | 0.18 | 0.78 | 1.01 | 5.73 | 92 | 0.33 |
| Titan Duo 15 | 12 | 25 | 56 | 99 | 51 | 9 | 40 | 0.23 | 80 | 0.20 | 0.70 | 0.97 | 5.49 | 87 | 0.52 |
| Spectrally Selective Films Interior | | | | | | | | | | | | | | | |
| Argent 50 | 51 | 28 | 20 | 99 | 30 | 36 | 34 | 0.51 | 56 | 0.44 | 0.66 | 0.94 | 5.34 | 44 | 1.00 |
| Argent 65 | 65 | 26 | 26 | 99 | 35 | 44 | 21 | 0.57 | 51 | 0.49 | 0.69 | 0.96 | 5.45 | 28 | 1.14 |
| e-Lite 70 | 66 | 15 | 16 | 99 | 23 | 36 | 41 | 0.55 | 52 | 0.48 | 0.73 | 0.98 | 5.59 | 27 | 1.20 |
| Specialty Films Decorative/Privacy | | | | | | | | | | | | | | | |
| Matte Translucent, 2 mil | 72 | | 17 | 94 | 14 | 68 | 18 | 0.84 | 27 | 0.73 | 0.90 | 1.07 | 6.08 | 20 | 0.86 |
| Black Out | 0 | | 6 | 100 | 41 | 0 | 59 | 0.20 | 84 | 0.16 | 0.72 | 0.98 | 5.57 | 100 | 0.00 |
| White Out | 10 | | 48 | 99 | 36 | 17 | 47 | 0.37 | 69 | 0.31 | 0.90 | 1.07 | 6.08 | 89 | 0.27 |
| UV Filter, 2 mil | 87 | | 10 | 100 | 9 | 79 | 12 | 0.95 | 18 | 0.82 | 0.86 | 1.05 | 5.96 | 3 | 0.92 |



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|--------------------------------------|-----------------------------|---------------------------------|---------------------------------|------------|--------------------------------|----------------------------------|-------------------------------|---------------------|-------------------------------|-----------------------------|------------------------|---------------------|---------------------|-------------------|-------------------|
| SolarZone Xtra Films Exterior | | | | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | | | | |
| Silver 20 Xtra | 17 | 62 | 62 | 99 | 63 | 12 | 25 | 0.22 | 81 | 0.19 | 0.84 | 1.04 | 5.91 | 81 | 0.77 |
| Silver 35 Xtra | 33 | 42 | 42 | 99 | 45 | 25 | 30 | 0.39 | 66 | 0.34 | 0.84 | 1.04 | 5.91 | 63 | 0.84 |
| Silver 50 Xtra | 48 | 28 | 27 | 99 | 30 | 37 | 33 | 0.53 | 54 | 0.46 | 0.84 | 1.04 | 5.91 | 46 | 0.90 |
| PolyZone Silver 20 Xtra | 16 | 63 | 64 | 99 | 65 | 12 | 23 | 0.22 | 81 | 0.19 | 0.84 | 1.04 | 5.91 | 82 | 0.73 |
| Silver Matte 20 Xtra | 13 | 48 | 60 | 99 | 62 | 10 | 28 | 0.22 | 81 | 0.19 | 0.84 | 1.04 | 5.91 | 84 | 0.59 |
| Solar Bronze | | | | | | | | | | | | | | | |
| Solar Bronze 20 Xtra | 16 | 46 | 39 | 99 | 64 | 9 | 27 | 0.20 | 83 | 0.17 | 0.84 | 1.04 | 5.91 | 82 | 0.80 |
| Solar Bronze 35 Xtra | 33 | 28 | 30 | 99 | 52 | 21 | 27 | 0.33 | 71 | 0.29 | 0.84 | 1.04 | 5.91 | 64 | 1.00 |
| Titan Dual Reflective | | | | | | | | | | | | | | | |
| Titan 07 Xtra | 8 | 18 | 57 | 99 | 58 | 7 | 35 | 0.21 | 82 | 0.18 | 0.84 | 1.04 | 5.91 | 91 | 0.38 |
| Titan 20 Xtra | 19 | 14 | 34 | 99 | 38 | 18 | 44 | 0.36 | 69 | 0.31 | 0.84 | 1.04 | 5.91 | 79 | 0.53 |
| Titan 35 Xtra | 35 | 14 | 22 | 99 | 25 | 31 | 44 | 0.50 | 57 | 0.43 | 0.84 | 1.04 | 5.91 | 61 | 0.70 |
| Titan 50 Xtra | 53 | 19 | 18 | 99 | 22 | 40 | 38 | 0.59 | 49 | 0.51 | 0.84 | 1.04 | 5.91 | 41 | 0.90 |
| Spectrally Selective | | | | | | | | | | | | | | | |
| Optilite 75 Xtra | 76 | 9 | 9 | 99 | 8 | 39 | 53 | 0.62 | 46 | 0.54 | 0.84 | 1.04 | 5.91 | 16 | 1.23 |

XTRM SolarZone Films Exterior

| | | | | | | | | | | | | | | | |
|------------------------------|----|----|----|------|----|----|----|------|----|------|------|------|------|----|------|
| Silver | | | | | | | | | | | | | | | |
| XTRM Silver 20 | 15 | 63 | 63 | 99.9 | 64 | 11 | 25 | 0.20 | 83 | 0.17 | 0.84 | 1.04 | 5.91 | 84 | 0.75 |
| XTRM Silver 35 | 30 | 46 | 49 | 99.9 | 53 | 22 | 25 | 0.34 | 71 | 0.29 | 0.84 | 1.04 | 5.91 | 67 | 0.89 |
| XTRM SkyLite S20X | 15 | 63 | 66 | 99.9 | 64 | 10 | 26 | 0.20 | 83 | 0.17 | 0.84 | 1.03 | 5.85 | 84 | 0.75 |
| XTRM PolyZone SkyLite | 15 | 63 | 66 | 99.9 | 64 | 10 | 26 | 0.20 | 83 | 0.17 | 0.84 | 1.03 | 5.85 | 84 | 0.75 |
| Titan Dual Reflective | | | | | | | | | | | | | | | |
| XTRM Titan 07 | 7 | 20 | 66 | 99.9 | 66 | 7 | 27 | 0.17 | 85 | 0.15 | 0.84 | 1.04 | 5.91 | 92 | 0.41 |
| XTRM Titan 20 | 20 | 17 | 40 | 99.9 | 44 | 17 | 39 | 0.33 | 71 | 0.29 | 0.84 | 1.04 | 5.91 | 78 | 0.60 |
| XTRM Titan 35 | 36 | 14 | 22 | 99.9 | 25 | 31 | 44 | 0.50 | 57 | 0.43 | 0.84 | 1.04 | 5.91 | 61 | 0.72 |



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|------------------------------|-----------------------------|---------------------------------|---------------------------------|------------|--------------------------------|----------------------------------|-------------------------------|---------------------|-------------------------------|-----------------------------|------------------------|---------------------|---------------------|-------------------|-------------------|
| SolarZone Safe Films | | | | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | | | | |
| Silver 20, 4 mil | 19 | 61 | 60 | 99 | 53 | 14 | 33 | 0.27 | 77 | 0.23 | 0.74 | 0.99 | 5.62 | 79 | 0.70 |
| Silver 20, 5 mil Xtra | 17 | 62 | 63 | 99 | 64 | 13 | 23 | 0.23 | 81 | 0.19 | 0.84 | 1.04 | 5.91 | 81 | 0.74 |
| Silver 20, 9 mil | 20 | 61 | 57 | 99 | 50 | 15 | 35 | 0.30 | 75 | 0.25 | 0.91 | 1.08 | 6.13 | 78 | 0.67 |
| Silver 20, 12 mil | 18 | 62 | 61 | 99 | 53 | 13 | 34 | 0.27 | 77 | 0.23 | 0.88 | 1.06 | 6.02 | 81 | 0.66 |
| Cold Steel | | | | | | | | | | | | | | | |
| Cold Steel 35, 6 mil | 40 | 16 | 18 | 99 | 19 | 29 | 52 | 0.52 | 56 | 0.44 | 0.90 | 1.07 | 6.08 | 56 | 0.77 |
| Cold Steel 50, 6 mil | 52 | 16 | 17 | 99 | 19 | 41 | 40 | 0.62 | 47 | 0.53 | 0.90 | 1.07 | 6.08 | 42 | 0.84 |
| Cold Steel 35, 10 mil | 40 | 17 | 17 | 99 | 18 | 30 | 52 | 0.53 | 54 | 0.46 | 0.91 | 1.08 | 6.13 | 55 | 0.76 |
| Cold Steel 50, 10 mil | 52 | 16 | 16 | 99 | 17 | 43 | 40 | 0.64 | 45 | 0.55 | 0.92 | 1.08 | 6.13 | 42 | 0.81 |
| Dual Reflective films | | | | | | | | | | | | | | | |
| OptiTune 22, 5 mil | 21 | 15 | 32 | 99 | 32 | 18 | 50 | 0.38 | 67 | 0.33 | 0.82 | 1.03 | 5.85 | 77 | 0.55 |
| OptiTune 30, 10 mil | 36 | 22 | 25 | 99 | 26 | 28 | 46 | 0.49 | 58 | 0.42 | 0.90 | 1.06 | 6.02 | 60 | 0.73 |

SafetyZone Clear

| | | | | | | | | | | | | | | | |
|----------------------------|----|----|----|----|----|----|----|------|----|------|------|------|------|----|------|
| Matte | | | | | | | | | | | | | | | |
| Matte, 5 mil | 58 | | 25 | 98 | 20 | 55 | 25 | 0.72 | 38 | 0.62 | 0.90 | 1.07 | 6.08 | 36 | 0.80 |
| Matte, 12 mil | 55 | | 28 | 99 | 22 | 52 | 26 | 0.69 | 40 | 0.60 | 0.90 | 1.07 | 6.08 | 38 | 0.80 |
| Clear | | | | | | | | | | | | | | | |
| Clear, 4 mil | 89 | 10 | 10 | 97 | 9 | 81 | 10 | 0.96 | 16 | 0.84 | 0.91 | 1.07 | 6.07 | 1 | 0.93 |
| Clear, 7 mil | 88 | 11 | 11 | 99 | 9 | 80 | 11 | 0.95 | 17 | 0.83 | 0.91 | 1.07 | 6.07 | 2 | 0.93 |
| Clear, 8 mil | 88 | 11 | 11 | 99 | 9 | 80 | 11 | 0.95 | 17 | 0.83 | 0.91 | 1.07 | 6.07 | 2 | 0.92 |
| Clear, 12 mil | 87 | 11 | 11 | 99 | 10 | 78 | 12 | 0.94 | 18 | 0.82 | 0.90 | 1.07 | 6.07 | 3 | 0.93 |
| Clear, 15 mil | 87 | 11 | 11 | 99 | 11 | 77 | 12 | 0.94 | 18 | 0.82 | 0.90 | 1.07 | 6.07 | 3 | 0.93 |
| Anti-Graffiti Films | | | | | | | | | | | | | | | |
| Anti Graffiti, 6mil Xtra | 88 | 10 | 10 | 99 | 9 | 79 | 12 | 0.95 | 18 | 0.82 | 0.84 | 1.07 | 6.05 | 2 | 0.93 |
| Clear | | | | | | | | | | | | | | | |
| Clear, 4 mil Xtra | 88 | 10 | 10 | 99 | 10 | 80 | 10 | 0.96 | 17 | 0.83 | 0.84 | 1.04 | 5.91 | 2 | 0.92 |