



GUARDIAN SUN-GUARD® HIGH PERFORMANCE LE 63 / LE 50 / LE 40

SUN-GUARD® HP LE Series of products are silver-based Low-E coated products that offer the benefits of **Low-E** performance coupled with the **flexibility for fabrication** and **solar control** performance of **SUN-GUARD®**.



UW Engineering Center, Madison WI
SUN-GUARD® High Performance LE 40 clear



Al-Jimi Commercial Center, Al Ain / UAE
SUN-GUARD® High Performance LE 63 green



Music Hall, Moscow
SUN-GUARD® High Performance LE 63 clear

Key Features

- Heat treatable / Bendable
- Uniform neutral colour
- Enhanced thermal insulation (U-value up to 1,4 W/m²K)
- Enhanced selectivity (light-to-solar factor ratio)
- Short lead times
- Long shelf life
- Application in insulated glass units only



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GUARDIAN SUN-GUARD® HIGH PERFORMANCE LE 63 / LE 50 / LE 40

Product Performance Data

| Product | Visible Light | | | Solar Energy | | | Solar Factor | | Shading Coeff. * | U-Value | |
|---------|------------------|-------------------------|------------------------|-------------------------|--------------------------------|----------------|--------------|----------------|------------------|---------------|-----------------|
| | Transmission [%] | Reflection Outdoors [%] | Reflection Indoors [%] | Direct Transmission [%] | Direct Reflection Outdoors [%] | Absorption [%] | EN 410 [%] | DIN 67 507 [%] | | Air [W/(m²K)] | Argon [W/(m²K)] |

Double Glazing Performance Data 6-16-4, Coating on surface #2

| | | | | | | | | | | | |
|-------------|-----------|----|----|----|----|----|-----------|----|------|-----|-----|
| LE 63 clear | 62 | 16 | 11 | 48 | 17 | 35 | 52 | 51 | 0,60 | 1,7 | 1,5 |
| LE 63 green | 50 | 12 | 11 | 27 | 8 | 65 | 32 | 30 | 0,37 | 1,7 | 1,5 |
| LE 50 clear | 52 | 18 | 10 | 38 | 21 | 41 | 41 | 41 | 0,47 | 1,6 | 1,4 |
| LE 50 green | 42 | 13 | 10 | 22 | 9 | 69 | 27 | 25 | 0,31 | 1,6 | 1,4 |
| LE 40 clear | 41 | 22 | 12 | 29 | 24 | 47 | 33 | 32 | 0,38 | 1,6 | 1,4 |
| LE 40 green | 33 | 16 | 12 | 17 | 10 | 73 | 22 | 21 | 0,25 | 1,6 | 1,4 |

Double Glazing – Low-E Enhanced Performance Data 6-16-4, Coating on surface #2, GUARDIAN Low-E 1.1 N on surface #3

| | | | | | | | | | | | |
|-------------|-----------|----|---|----|----|----|-----------|----|------|-----|-----|
| LE 63 clear | 59 | 14 | 8 | 40 | 19 | 41 | 47 | 45 | 0,54 | 1,4 | 1,1 |
| LE 63 green | 48 | 11 | 7 | 24 | 8 | 68 | 30 | 28 | 0,34 | 1,4 | 1,1 |
| LE 50 clear | 49 | 17 | 7 | 32 | 22 | 46 | 38 | 37 | 0,44 | 1,4 | 1,1 |
| LE 50 green | 40 | 12 | 7 | 19 | 9 | 72 | 25 | 24 | 0,29 | 1,4 | 1,1 |
| LE 40 clear | 39 | 21 | 8 | 25 | 25 | 50 | 31 | 30 | 0,36 | 1,4 | 1,1 |
| LE 40 green | 32 | 15 | 8 | 15 | 10 | 75 | 21 | 19 | 0,24 | 1,4 | 1,1 |

All values subject to product tolerances and are without any guarantee.
Spectrophotometrical values according to EN 410; U-values according to EN 673 (15 K).
* Solar Factor (EN 410) / 0,87

