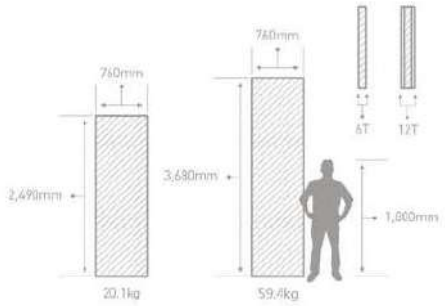
# Product Technical Data

The product technical data sheet discuses the performance of Hanex Solid Surfaces. Performance results are specific to the standard tested. The standards may be used as product specifications in other regions other than what is stated below.




### About Hanex Solid Surfaces

Hanex Solid Surface is made with a composition of Methyl Methacralate(MMA), Poly Methyl Methacrylate(PMMA) resin filled with Alumina Trihydrate(ATH), and other specialized formats to give timeless beauty and qauality.

Hyundai L&C is able to produce solid surface sheets up to 1,520mm wide. These wide sheets allow for a much higher degree of flexibility and efficiency in fabrication and installation. Wide sheets for most available colors require custom orders and minimum order quantity.

* LEED Credit: You can get points for LEED v4.1 BD+C and ID+C from USGBC (American Green Building Council) for building projects using Hanex.

### Plant Management System

| System | Standard |
|---|---|
| Quality Management Systems | ISO 9001 |
| Environmental Management Systems | ISO 14001 |
| Occupational Health & Safety Management Systems | ISO 45001 |

### Product Declaration

| Declaration | Expiry Date |
|---|---|
| EPD (Environmental Health Product Declaration) | 2026 Jul 01 |
| HPD (Health Product Declaration) | 2026 Oct 20 |

### Physical Test

| Test | Standard | Result |
|---|---|---|
| Tensile Strength | ASTM D638 | 43.1 Mpa |
| Tensile Modulus of Elasticity | ASTM D638 | 12.1 Gpa |
| Flexural Strength | ASTM D790 | 65.3 Mpa |
| Flexural Modulus of Elasticity | ASTM D790 | 10.8 Gpa |
| Rockwell Hardness | ASTM D785 | 88 |
| Izod Impact | ASTM D256 | 17 J/m |
| Water Absorption | ASTM D570 | 0.03 g/cm$^3$ |
| Density (23°C) | ASTM D792 | 1.81 g/cm$^3$ |
| Deflection Temperature | ASTM D648 | 106 °C |
| Thermal Expansion | JIS K 6911 | 3.5x10$^{-5}$/°C |
| Heat Resistance | JIS K 6902 | No Defects |
| Heat Water Resistance | JIS K 6902 | No Defects |

| Test | Standard | Result |
|---|---|---|
| Contact with Foods | NSF 51 | Pass |
| Light Resistance | NEMA LD3 | Pass |
| Boiling Water | NEMA LD3 | Pass |
| Ball Impact Resistance | NEMA LD3<br>ISO 4586-2 | Pass (Max Height 2.5m)<br>Pass (Max Height 2.0m) |
| Point Impact Resistance | ANSI Z124.3 | Pass |
| Stain Resistance | ANSI Z124.3 | Pass |
| Wear and Cleanability | ANSI Z124.3 | Pass |
| Cigarette Burn | ANSI Z124.3 | Pass |
| Chemical Resistance | ANSI Z124.3<br>ISO 19712-3 | Pass |
| Weatherability | ASTM G155 | No Visual Change (1,000 hours) |
| Compressive Strength | ISO 604 | 118 MPa |

### Healthcare Environment Compliance

| Test | Standard | Result | Description |
|---|---|---|---|
| VOC Emission | UL 2818 | Greenguard, Greenguard Gold | Gold standard for chemical emissions for building materials, finishes and furnishings |
| TVOC Emission | ISO 16000-9 | 0.015 mg/m$^2$·h | Emission of volatile organic compounds from building products and furnishing |
| | Healthy Building Material | Excellent | |
| SVHC | SGS in House | Pass | Substances of very high concern for authorization by European Chemicals Agency |
| Phthalate Content | KS M 1991 | Not Detected | Determination of phthalates content in polymer materials |
| Fungi Resistance | ASTM G21 | No Growth | Standard practice for determining resistance of synthetic polymeric materials to fungi |
| Bacteria Resistance | ASTM G22 | No Growth | Standard practice for determining resistance of plastics to bacteria |

### Fire Performance

| Test | Standard | Region | Class |
|---|---|---|---|
| Surface Burning | ASTM E84 | United States | Class A (Smoke developed index : 10, Flame spread index : 20) |
| Euroclass Reaction to Fire | EN 13501-1 | Europe (CEN Members) | Class B (Smoke production : s1, Flaming droplets : d0) |
| Railway | EN 45545 | Europe (CEN Members) | R1 for HL3 |

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