

Wilsonart® HD® High Definition® Laminate

Technical Data

Manufacturer

Wilsonart International, Inc.
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Product Description

Recommended Uses

Wilsonart® HD® High Definition® Laminate is suitable for use on high quality residential and commercial countertops, furniture, fixtures and casework.

- **High Definition Type HGP 376** is used for work surfaces on counters, islands, vanities, desks and tables. Type 376 is made for both horizontal and vertical interior applications where the surface must be functional, durable and decorative. Type 376 may be postformed to eliminate seams for a more attractive edge.

Product Composition

Decorative surface papers impregnated with melamine resins are pressed over kraft paper core sheets impregnated with phenolic resin. These sheets are then bonded at pressures greater than 1000 pounds per square inch at temperatures approaching 300°F (149°C). Finished sheets are trimmed, and the backs are sanded to facilitate bonding.

Basic Limitations

Wilsonart HD High Definition Laminate is for interior use only and is not recommended for direct application to plaster, concrete walls, or gypsum wallboard. It is not structural material and must be bonded to a suitable substrate.

Do not subject Wilsonart HD High Definition Laminate to extremes in humidity, temperatures higher than 275°F (135°C) for substantial periods of time, or intense, continuous, direct sunlight.

Patterns & Colors

Available in the following patterns only. Please see actual sample before specifying.

1811K-35	Deepstar Flint	1830K-35	Mystic Gemstone
1812K-35	Deepstar Fossil	1831K-35	Raven Gemstone
1813K-35	Deepstar Glaze	1832K-35	River Gemstone
1814K-35	Deepstar Bronze	1834K-45	Crystalline Shell
1815K-35	Deepstar Agate	1835K-45	Crystalline Onyx
1817K-35	Deepstar Mineral	1836K-45	Crystalline Ice
1818K-35	Deepstar Slate	1837K-45	Crystalline Pearl
1819K-35	Bella Venito	1838K-45	Crystalline Dune
1820K-35	Bella Noche	1839K-45	Crystalline Braun
1821K-35	Bella Reale	1840K-45	Crystalline Iris
1822K-35	Bella Capri	1841K-45	Desert Passage
1823K-35	Sedona Spirit	1842K-45	Canyon Passage
1824K-35	Sedona Bluff	1843K-45	Mountain Passage
1825K-35	Sedona Spa	1844K-45	Alpine Passage
1826K-35	Sedona Trail	1847K-45	Bronze Eclipse

1848K-45	Ebony Eclipse	1859K-55	Golden Travertine
1849K-35	Luna Frost	1860K-55	Roman Limestone
1850K-35	Luna Winter	1861K-55	Tuscan Limestone
1851K-35	Luna Glow	1862K-55	Corinthian Limestone
1855K-55	Carrara Santorini	1863K-55	Bainbrook Grey
1852K-35	Luna Crest	1864K-55	Salentina Nero
1853K-35	Luna Shadow	1865K-55	Salentina Grigio
1854K-35	Luna Night	1866K-55	Salentina Rosso
1856K-55	African Slate	1867K-55	Perla Piazza
1857K-55	Bengal Slate	1868K-55	Aged Piazza
1858K-55	Silver Travertine		

Finishes

❖ #35 Mirage

Subtle variations in matte and gloss finish connect to nature’s own finishes: rough and weathered, smooth and polished. This finish is exclusive to Wilsonart HD High Definition Laminate and is not available in other designs or product types. #35 carries AEON™ technology and provides 4x wear resistance of industry standards, along with improved scratch, scuff & mar performance. *Glossometer reading: 50± 20.*

❖ #45 Facet

A medium to small scale texture providing an optical surface effect that adds dimension and depth to laminate. It is comprised of a balance of matte and gloss areas. The angular, faceted, textural characteristics connect it to the stone and quartz-like visuals it was designed for. #45 carries AEON technology and provides 4x wear resistance of industry standards, along with improved scratch, scuff & mar performance. *Glossometer reading: MD and CD 50 ± 20*

❖ #55 Glaze

A layering of matte features over a glaze semi-gloss creates this time worn effect. #55 carries AEON technology and provides 4x wear resistance of industry standards, along with improved scratch, scuff & mar performance. *Glossometer reading: MD and CD 25 ± 20.*

NOTE: Glossometer readings are made at a 60° angle of incidence. MD refers to the machine direction of a laminate sheet, and CD refers to the cross direction.

Standard Sheet Sizes

- 48" (1219mm) x 96" (2438mm)
- 60" (1524mm) x 96" (2438mm)
- 60" (1524mm) x 120" (3048mm)
- 60" (1524mm) x 144" (3658mm)

Thickness and Weight

Description	376
Thickness	0.039" ± 0.005" (0.99mm ± 0.13mm)
Weight per square foot	0.260#

Technical Data

Physical Properties of High Definition Laminate 376

NEMA Test	Typical Wilsonart Type 376	NEMA Standard HGP
Thickness	0.039" ± 0.005" (0.99mm ± 0.13mm)	0.039" ± 0.005" (1mm ± 0.12mm)
Appearance	No ABC def.	No ABC def.

Light Resistance	Slight effect	Slight effect
Cleanability (cycles)	10	20 (max.)
Stain Resistance Reagents 1-10 Reagents 11-15	No effect Slight effect	No effect Moderate effect
Boiling Water Resistance	No effect	Slight effect
High Temperature Resistance	Slight effect	Slight effect
Impact Resistance	55" (1397mm)	30" (762mm) (min.)
Radiant Heat Resistance	140 seconds	100 sec. (min.)
Dimensional Stability Machine Direction Cross Direction	0.5% 0.8%	1.1% (max.) 1.4% (max.)
Surface Wear Resistance (cycles)	1200	400 (min.)
Formability*	*9/16" face (14.28mm) *3/16" back (4.76mm)	*5/8" face (16.00mm)
Blistering	70 seconds	55 seconds

*Radius for face is actually the radius of the form around which the laminate is postformed. The radius for back is actually the radius to which the decorative face is postformed.

Typical Fire Test Data

High-pressure laminates are subject to Flame Spread and Smoke Developed standards in structures where codes establish such conditions.

Test data to determine compliance with these codes are obtained by the Steiner Tunnel Test method of the American Society for Testing Materials (ASTM-E-84, Standard Test Method for Surface Burning Characteristics of Building Materials). Tests were conducted in accordance with test method and mounting procedure as described in paragraph X1.7.2 of the test method. This procedure is cataloged by Underwriters Laboratories, Inc. as UL 723.

Here is typical data for Wilsonart HD High Definition Laminate, averaged from two specific tests:

Typical Flame Spread and Smoke Developed Properties 376

Product Type	Test Condition	Flame Spread	Smoke Developed
Postforming Type 376	Unbonded	60	35
Postforming Type 376	Bonded with contact adhesive to particleboard substrate; 3/8"	50	140

When you wish to specify decorative laminate for a Class I or A fire rating, please refer to the Fire-Rated or Metal Core Laminate Tech Data.

Model Code Designations used to determine flame spread classification

Flame Spread Classification (Max. Rating)	International (IBC)	Life Safety (NFPA 101)
25	A	A
75	B	B
200	C	C

(RE: Architectural Woodwork Quality Standard, 8th Edition, Version 1.0, - 2003)

All Model Codes regulate the generation of smoke by interior finish material. In all cases they specify a maximum smoke development rating of 450.

Codes and Certifications

General Standards

Wilsonart HD High Definition Laminate conforms to the voluntary standards of the American National Standards Institute/National Electrical Manufacturers Association (ANSI/NEMA) LD 3-2005, for thickness, performance properties and appearance. Wilsonart HD High Definition Laminate meets or exceeds the International Standards Organization specifications as found in ISO 4586, titled "High-Pressure Decorative Laminate (HPDL) – Sheets Based on Thermosetting Resins – Part I: specifications."

The GREENGUARD Environmental Institute™ has awarded its GREENGUARD® Indoor Air Quality Certification to all Wilsonart Laminate. Wilsonart Laminate products have been tested under the stringent GREENGUARD Standards for low-emitting materials. All GREENGUARD Indoor Air Quality Certified® products ensure minimal impact on the indoor environment. For a copy of the certificate, visit www.greenguard.org.

Specific Product Standards

U.S. Federal Specification L-P 508H, April 9, 1977, "Plastic Sheets, Laminated, Decorative and Nondecorative," spells out criteria for decorative laminates for federal installations. Wilsonart 107, 335, 350 and 376 laminates comply.

NSF International (NSF) #35, "Laminated Plastic for Surfacing for Food Service Equipment." All solid colors and printed patterns in Basic Types 107, 335, 350 and 376, comply.

U.S. Federal Motor Vehicle Safety Standard (FMVSS) 302, "Flammability of Interior Materials." Basic Types 107, 335, 350 and 376 comply.

Installation: Fabrication and Assembly Recommendations

Fabrication should follow approved methods. Assembled pieces should meet the specifications of KCMA (Kitchen Cabinetmakers Manufacturers Association), ANSI A-161.2-1998 (revised), and "Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program" guidelines of the Architectural Woodwork Institute where applicable.

Wilsonart HD High Definition Laminates must be bonded to a substrate of reliable quality, such as particleboard, medium density fiberboard or plywood with one A face. High-pressure laminate, plaster, concrete and gypsum board should not be considered suitable substrates. High Definition laminates may not be used as structural members.

Bond with adhesives and follow the techniques recommended by the adhesive manufacturer. Recommended adhesives are permanent types, such as urea and polyvinyl acetate (PVA), and contact types. Wilsonart adhesives are recommended for most bonding conditions.

To avoid stress cracking, do not use square-cut inside corners. All inside corners should have a minimum of 1/8" (3.175mm) radius and all edges should be routed smooth.

Drill oversized holes for screws or bolts. Screws or bolts should be slightly countersunk into the face side of a laminate-clad substrate.

Take care to ensure appropriate acclimation has taken place with the laminate and the substrate prior to fabrication. The face and backing laminates and the substrate should be conditioned in the same environment for 48 hours before fabrication.

Recommended conditioning temperature is about 75°F (24°C). Laminates should be conditioned at 45% to 55% relative humidity.

With postforming machinery, Wilsonart® HD Type 376 and 366 will postform at a nominal sheet temperature range of 325°F to 338°F (163°C to 170°C) in 20 ± 5 seconds.

Carbide-tipped saw and router blades should be used for cutting. High tool speed and low feed speed are advisable. Cutting blades should be kept sharp. Use a hold-down to prevent any vibration.

Warranty

Wilsonart International, Inc. ("Wilsonart") warrants to the original consumer purchaser for one (1) year after date of purchase ("Warranty Period") that, under normal use and service, Wilsonart Laminate Sheets are free from manufacturing defects and conform to published specifications. This warranty applies only to a Wilsonart Laminate Sheet which has been installed in an interior application and remains installed at that location ("Warranted Product") and is extended only to, and may be enforced only by, the original consumer purchaser. THIS WARRANTY IS NOT TRANSFERABLE. This warranty is expressly conditioned upon submission of proof of date of purchase.

WHAT IS EXCLUDED:

This warranty shall not apply to damage arising from any of the following:

1. Accidents, abuse or misuse;
2. Exposure to extreme temperature;
3. Improper fabrication or installation; or
4. Improper maintenance or repair.

WHAT WILSONART WILL DO IF YOUR CLAIM IS COVERED BY THIS WARRANTY

Wilsonart will provide, at no cost and with delivery prepaid, a Wilsonart Laminate Sheet to replace the Warranted Product. Wilsonart will not pay for removal of the Warranted Product or for fabrication or installation of the replacement laminate or any other costs. No replacement under the warranty shall extend the Warranty Period.

Any replacement is limited to colors and styles of Wilsonart Laminate Sheets available at the time of replacement. Exact color matches may not be possible. If the original color or style is no longer available, Wilsonart has the right to substitute another Wilsonart Laminate Sheet of equal or greater value than the Warranted Product.

WHAT YOU NEED TO DO

To make a claim under this warranty, you must contact the Wilsonart Warranty Center at the address listed below before the end of the Warranty Period. You must provide proof of date of purchase, photographs of the Warranted Product and access for inspection for warranty determination by a Wilsonart representative, and thereafter Wilsonart will provide you a determination on your claim.

Wilsonart Warranty Center
2400 Wilson Place
Temple, Texas 76504
877-537-0533... Toll Free

THE FOREGOING SHALL CONSTITUTE THE EXCLUSIVE REMEDY OF THE PURCHASER AND THE EXCLUSIVE LIABILITY OF WILSONART. THE ABOVE WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES WHETHER ORAL OR WRITTEN. ANY IMPLIED WARRANTIES WHICH MAY ARISE BY OPERATION OF LAW, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE PERIOD OF THE WRITTEN WARRANTY SET FORTH HEREIN. WILSONART SHALL NOT, UNDER ANY CIRCUMSTANCES OR UNDER ANY LEGAL THEORY, BE LIABLE TO THE PURCHASER OR ANY OTHER PERSON FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE, INCLUDING WITHOUT LIMITATION DAMAGES TO, OR LOSS OF USE OF, PROPERTY, DAMAGES FOR LOSS OF PROFITS OR REVENUES OR ANY OTHER DAMAGES ARISING FROM THE PURCHASE. WILSONART'S LIABILITY WILL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE WILSONART PRODUCT.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. No agent, dealer, employee or representative of Wilsonart nor any installer, fabricator or other person is authorized to modify the warranty in any respect. The invalidity of all or a part of any of the provisions of the Limited Warranty shall not affect or invalidate any other provision of the Limited Warranty. For further assistance or questions, contact Wilsonart at the address or telephone number listed above or at www.wilsonart.com.

Maintenance*

The decorative surface may be cleaned with warm water and mild soaps, such as those used for hands or dishes. Do not use cleansers that contain abrasives, acids or alkalis; they will damage the decorative surface. Remove stubborn stains with a 2-minute exposure to hypochlorite bleach such as Clorox®, followed by a clean water rinse.

We recommend that you **not** allow any of the following agents to **remain** in contact with the decorative surface:

1. Hypochlorite bleach, except as described above
2. Hydrogen peroxide solution
3. Mineral acids, hydrochloric acid such as Lime-A-Way™, sulfuric or nitric acid
4. Caustic solutions containing greater than 2% lye, such as Drano®
5. Sodium bisulfate, such as Sani-Flush®
6. Potassium permanganate
7. Berry juices
8. Silver nitrate, in 1% concentration or greater
9. Gentian violet
10. Mild silver protein, such as 20% argyrol
11. Bluing
12. Fabric dye, such as Tintex® or Rit®
13. Alcohol containing 1% iodine in solution

If you require a decorative laminate that can withstand these and other chemicals, please refer to the Tech Data for Wilsonart® Chemsurf® Chemical-Resistant Laminates.

Free copies of the "Care and Maintenance Guide," which covers all Wilsonart products, are available. The guide can be accessed at <http://www.wilsonartlaminates.com> or by calling our hotline at 800-433-3222. It can be used for your own information, for project manuals, and for provision to clients and contractors involved with interior construction and finishing.

**Not applicable for Phenolic Laminate Backing Sheet.*

Technical Services

For samples, literature, questions or technical assistance, please contact our toll-free Hotline at (800) 433-3222, Monday through Friday, 7 am – 7 pm, CST.

Specification Form:

Surface shall be Wilsonart® HD® High Definition® Laminate,
produced by Wilsonart International, Inc.,
Temple, Texas 76503-6110

Type: 376

Surface

Color Number: _____

Color Name: _____

Finish

Number: 35 or 45

Name: Mirage or Facet

Edge Trim

Color Number: _____

Color Name: _____

Adhesive

Name: _____

Grade/Type: _____

Brand: Wilsonart Adhesive