TECHNICAL DATA Wilsonart® Virtual Design Library Laminate (VDL)



2501 Wilsonart Drive P.O. Box 6110 Temple, TX 76503-6110

1. Manufacturer

Wilsonart LLC 2501 Wilsonart Drive P.O. Box 6110 Temple, Texas 76503-6110

Phone: (254) 207-7000; (800) 433-3222

Fax: (254) 207-2384

Web Site: www.wilsonart.com

2. Product Description

Recommended Uses

Wilsonart® VDL Laminate is suitable for use on fine quality residential and contract furniture, fixtures and casework, and also for architectural application on columns, wainscoting, valances, cornices, interior doors and divider systems.

- Vertical Surface (VGP) Type 362 and 367 is the usual choice to surface cabinet walls, doors and
 drawer panels. It often appears on the vertical surfaces of desks, restaurants booths and maitre
 d' stations, and as architectural cladding. Type 362 and 367 is intended for vertical applications
 where a functional, durable, decorative surface must absorb somewhat less impact than a
 comparable horizontal surface. VGP surfaces may be postformed to achieve radiused edges.
- Postforming (HGP) Type 372 and 377 adds the decorative capability of a soft edge to any typical
 laminate use. Common applications of postforming laminates are formed edges for counters,
 desktops, cabinet doors and drawer panels. Type 372 and 377 is intended for use on vertical and
 horizontal interior surfaces where it is necessary or desirable to roll the laminate on a simple
 radius over the edge of the substrate. This eliminates seams and leaves an attractive surface.

Wilsonart® HD® finishes feature Antimicrobial Protection that helps inhibit the growth of stain and odor causing bacteria, mold, and mildew on your countertop or surface. Wilsonart's Antimicrobial Protection won't wash away or wear off. Premium and Standard finishes are available with Antimicrobial Protection upon request during the ordering process. Antimicrobial Protection requests for Wilsonart® VDL and Wilsonart By You must be pre-approved by product management.

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® VDL 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® VDL to extremes in humidity, temperatures higher than 275°F (135°C) for substantial periods of time, or intense, continuous, direct sunlight.

Patterns & Colors

Not all sizes are available in all designs & finishes. For information on specific designs, please check availability at www.wilsonart.com or contact your Wilsonart Representative.

Finishes

• #01 High Gloss - Premium

A mirror sheen finish, which gives a smooth brilliant appearance. #01-High Gloss finish features Aeon™ Enhanced Scratch & Scuff-Resistant Performance Technology, and carries a premium upcharge. Recommended to be used for horizontal applications such as countertops, light-to-medium commercial applications and for vertical applications. *Nominal Glossometer Reading* = 110

• #07 Textured Gloss - Premium

A fine textured finish with a sheen level indicative of a waxed wood, polished stone, or other moderately reflective materials. #07 finish features Aeon^m Enhanced Scratch & Scuff-Resistant Performance Technology, and carries a premium upcharge. Recommended for horizontal and vertical applications. *Nominal Glossometer Reading* = 42

- #12 SoftGrain Premium
 - A dense woodgrain structure that is low gloss and soft to the touch. Subtle highlights of reflectivity randomly occur within the embossed grains, creating a sophisticated raw wood look. #12 finish features Aeon™ Enhanced Scratch & Scuff-Resistant Performance Technology, and carries a premium upcharge. Recommended for horizontal and vertical applications. *Nominal Glossometer Reading* = 8
- #18 Linearity Premium
 - A directional texture running the length of the sheet, having a narrow, random, matte-gloss linear quality. It is complementary to linear wood-grains, and linear patterns (such as the "Satin" series), and provides dimension and visual movement to solid colors. #18 finish features AeonTM Enhanced Scratch & Scuff-Resistant Performance Technology, and carries a premium upcharge. Recommended for horizontal and vertical applications. *Nominal Glossometer Reading* = 18
- #22 Antique Premium
 A mixture of varying low
 - A mixture of varying low gloss features combined with organic movement, indicative of the surface of an aged stone or an antique metal. Antique features Aeon™ Enhanced Scratch & Scuff-Resistant Performance Technology, and carries a premium upcharge. Recommended for horizontal and vertical applications. *Nominal Glossometer Reading* = 9
- #38 Fine Velvet Texture Standard
 - A smooth textured finish with moderate reflective value. Nominal Glossometer Reading = 14
- #52 Quarry Premium
 - Premium finish emulating the "pitted" look of polished natural stone. Recommended for horizontal and vertical applications. #52 features Aeon™ Enhanced Scratch & Scuff-Resistant Performance Technology, and carries a premium upcharge. Recommended for horizontal and vertical applications. *Nominal Glossometer Reading* = 55
- #60 Matte Standard
 - Textured finish with a moderate reflective quality. Recommended for horizontal and vertical applications. Nominal Glossometer Reading = 10
- #78 FineGrain Premium
 - The FineGrain premium finish features the polish and luxe of a real wood veneer, with a subtle, narrow grain structure that runs the length of the sheet. #78 finish features AeonTM Enhanced Scratch & Scuff-Resistant Performance Technology, and carries a premium upcharge. Recommended for horizontal and vertical applications. *Nominal Glossometer Reading* = 38

NOTE: Nominal Glossometer Readings are made at a 60° angle of incidence.

Finish Availability: Not all finishes are available in all patterns/colors. Some finish options have limited size availability. Please check with your Wilsonart representative or consult the pattern availability lookup on our website (www.wilsonart.com) to verify size availability by finish type.

Standard Sheet Sizes

48" x 96"	60" x 144"
1219mm x 2438mm	1524mm x 3658mm

Thicknesses and Weights

Description	362/367	372/377
Thickness	0.028" + 0.001 - 0.004" (0.71mm + 0.03 - 0.10mm)	0.036" ± 0.005" (0.91mm ± 0.13mm)
Weight per square foot	0.186#	0.260#

3. Technical Data

Physical Properties of Vertical Surface Laminates (VDL)

ISO 4586 Test	Typical Wilsonart Type 362/367	ISO 4586-3 VGP
Thickness	0.028" + 0.001 - 0.004" (0.71mm + 0.03 -0.10)	N/A
Appearance	No ABC def.	N/A
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 (Gloss) No Effect (Other Finishes)
High Temperature Resistance	Slight effect	Slight Effect (Gloss) No Effect (Other Finishes)
Impact Resistance	40" (1016mm)	23.5" (600mm)
Radiant Heat Resistance	120 seconds	≥ 200 sec.
Dimensional Stability Machine Direction Cross Direction	0.5% 0.8%	1.1% (max.) 1.4% (max.)
Surface Wear Resistance (cycles)	Meets or Exceeds 400	350 (min.)
Formability	*1/2" radius (13mm)	7/16" radius (11mm) 9/16" radius(14.7mm)
Blistering	45 seconds	≥ 40 seconds

^{*}Radius for face is actually the radius of the form around which the laminate is postformed.

Physical Properties of Postforming Laminate (VDL)

ICO AEOC Took	Typical Wilsonart	ISO 4586-3
ISO 4586 Test	Type 372/377	HGP
Thickness	0.036" ± 0.005"	$0.039" \pm 0.005"$
	$(0.91\text{mm}\pm0.13\text{mm})$	$(1mm \pm 0.12mm)$
Appearance	No ABC def.	No ABC def.
Light Resistance	Slight effect	Slight effect
Cleanability (cycles)	10	20
Stain Resistance		
Reagents 1-10	No effect	No effect
Reagents 11-15	Slight effect	Moderate effect
Dailing Water Daviston as No. 46 at	No offeet	Slight Effect (Gloss)
Boiling Water Resistance	ater Resistance No effect	No Effect (Other Finishes)
High Temperature	011-1-1 - 44 1	Slight Effect (Gloss)
Resistance	Slight effect	No Effect (Other Finishes)
Impact Resistance	55" (1397mm)	31.5" (800mm)

Radiant Heat Resistance	140 seconds	≥ 200 sec.
Dimensional Stability		
Machine Direction	0.5%	1.1% (max.)
Cross Direction	0.8%	1.4% (max.)
Surface Wear Resistance (cycles)	Meets or Exceeds 400	350 (min.)
Formability*	*5/8" face (16.00mm)	*9/16" face (14.27mm) *3/4" back (19.05mm)
Blistering	70 seconds	≥ 40 seconds

^{*}Radius for face is actually the radius of the form around which the laminate 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 are 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.

Specific Flame Spread and Smoke Developed properties for Virtual Design Library types will depend on the specific design selected. Testing on individual designs will be required to verify these values.

Model Code Designations used to determine flame spread classification

Flame Spread Classification (Max. Rating)	International (IBC)	Life Safety (NFPA 101)
25	Α	Α
75	В	В
200	С	С

RE: Architectural Woodwork Standards, 1st Edition, Version 1.0, - 2009

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 product types 362, 367, 372 and 377 conform to the voluntary standards of the American National Standards Institute, for thickness, performance properties and appearance. Wilsonart product types 362, 367, 372 and 377 meet or exceed 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 UL GREENGUARD Environmental Institute has awarded its UL GREENGUARD Indoor Air Quality Certification to Wilsonart® Laminate. All Wilsonart® Laminate product types were tested under the stringent UL GREENGUARD Standards for low-emitting products. All UL GREENGUARD Indoor Air Quality Certified products ensure minimal impact on the indoor environment. For a copy of the certificate, visit www.greenguard.org.

Branded Cleaner and Sanitizer Resistance for Wilsonart® Laminate per ISO 4586-2 Method 31 (B)

No effect was exhibited except as noted (* or **) on the following:

- 1. Beckart Environmental (Stabilized Chlorine Dioxide Mixed with Water at 3000ppm)
- 2. Benefect®
- 3. Claire® Germicidal Cleaner (Country Fresh Scent)
- 4. Claire® Disinfectant Spray Q (Country Fresh Scent)
- 5. Clean Republic All Purpose Everyday Cleaner (Hypochlorous Acid 0.003% Solution)
- 6. Clorox® Anywhere® Hard Surface Sanitizing Spray*
- 7. Clorox® Clean-Up (Cleaner & Bleach)
- 8. Clorox® Disinfecting Bleach w/6% Sodium Hypochlorite (24:1/Water:Bleach)
- 9. Clorox® Disinfecting Spray
- 10. Clorox® Disinfecting Wipes
- 11. Clorox Healthcare® Bleach Germicidal Cleaner *
- 12. Clorox Healthcare® Hydrogen Peroxide Cleaner Disinfectant
- 13. Clorox Healthcare® Fuzion® Cleaner Disinfectant*
- 14. Clorox Healthcare® VersaSure® Cleaner Disinfectant Wipes
- 15. Clorox® Total 360 Disinfectant Cleaner
- 16. Diversey™ Expose® II 256
- 17. Diversey™ Oxivir 1
- 18. Diversey™ Oxivir Tb Wipes
- 19. Diversey™ Stride® Floral Neutral Cleaner
- 20. Diversey™ Virex® II 256
- 21. Fabuloso® Complete (Multi-Purpose Cleaner)
- 22. Lysol® Professional Disinfectant Spray
- 23. Microban® 24 Hour (Multi-Purpose Cleaner)
- 24. PDI Sani-Prime® Germicidal Spray
- 25. PDI Super Sani-Cloth® Germicidal Disposable Wipes
- 26. PURELL® Advanced Hand Sanitizer Gel
- 27. Purell® Food Service Surface Sanitizer
- 28. Purell® Professional Surface Disinfectant
- 29. Purell® Healthcare Surface Disinfectant
- 30. Simple Green® Concentrated (All-Purpose Cleaner)
- 31. Spic and Span® Everyday (Antibacterial Cleaner)

Test procedure: Listed materials were placed in contact with Wilsonart® Laminate surface under 1" (25.4mm) diameter watch cover glass for 16 hours duration prior to evaluation for effect. The branded cleaners and sanitizers listed above were cleaned with water only.

- Causes slight change of gloss or color.
- ** Causes slight damage, with degree of damage proportionate to length of exposure and concentration.

Branded Cleaner and Sanitizer Resistance for Wilsonart® Laminate per BIFMA HCF 8.1-2014 (Section 6 / Modified)

No effect was exhibited except as noted (* or **) on the following:

- 1. Beckart Environmental, Inc. (Stabilized Chlorine Dioxide Mixed with Water at 3000ppm)
- 2. Benefect®
- 3. Claire® Germicidal Cleaner (Country Fresh Scent)
- 4. Claire® Disinfectant Spray Q (Country Fresh Scent)
- 5. Clean Republic All Purpose Everyday Cleaner (Hypochlorous Acid 0.003% Solution)
- 6. Clorox® Anywhere® Hard Surface Sanitizing Spray
- 7. Clorox® Clean-Up (Cleaner & Bleach)

- 8. Clorox® Disinfecting Bleach w/6% Sodium Hypochlorite (24:1/Water:Bleach)
- 9. Clorox® Disinfecting Spray
- 10. Clorox® Disinfecting Wipes
- 11. Clorox Healthcare® Bleach Germicidal Cleaner
- 12. Clorox Healthcare® Hydrogen Peroxide Cleaner Disinfectant
- 13. Clorox Healthcare® Fuzion® Cleaner Disinfectant
- 14. Clorox Healthcare® VersaSure® Cleaner Disinfectant Wipes
- 15. Clorox® Total 360 Disinfectant Cleaner
- 16. Diversey™ Expose II 256
- 17. Diversey™ Oxivir 1
- 18. Diversey™ Stride® Floral Neutral Cleaner
- 19. Diversey™ Tb Wipes
- 20. Diversey™ Virex II 256
- 21. Fabuloso® Complete (Multi-Purpose Cleaner)
- 22. Lysol® Professional Disinfectant Spray
- 23. Microban® 24 Hour (Multi-Purpose Cleaner)
- 24. PDI Sani-Prime® Germicidal Spray
- 25. PDI Super Sani-Cloth® Germicidal Disposable Wipes
- 26. PURELL® Advanced Hand Sanitizer Gel
- 27. Purell® Food Service Surface Sanitizer
- 28. Purell® Professional Surface Disinfectant
- 29. Purell® Healthcare Surface Disinfectant
- 30. Simple Green® Concentrated (All-Purpose Cleaner)
- 31. Spic and Span® Everyday (Antibacterial Cleaner)

Test procedure: Listed reagent materials were placed in contact with Wilsonart® Laminate surface with a one-inch square 100% cotton cloth completely saturated and covered with a 2" (50.8mm) diameter watch cover glass for 15 minute duration. The reagents listed above were removed with clean cloth and the area was then cleaned with clean cloth and distilled water only. The surface area was allowed to dry for 1-hour prior to evaluation for effect.

- * Causes slight change of gloss or color.
- ** Causes slight damage, with degree of damage proportionate to length of exposure and concentration.

Resistance of Furniture to UV Lights for Wilsonart® Laminate per BIFMA HCF 8.1-201X Section 9 (Alternate Method per ASTM G155 using ISO 4586-2.33 conditions).

Wilsonart® VDL Laminates 362, 367, 372 and 377 conforms to BIFMA – Healthcare Furniture Design Guidelines for Cleanability, Section 9 Resistance to Furniture to UV Lights. Wilsonart VDL Laminates 362, 367, 372 and 377 meet or exceed the acceptance level for surface evaluation.

4. <u>Installation: Fabrication and Assembly Recommendations</u>

Wilsonart® VDL Laminate 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. Wilsonart VDL may not be used as a structural member.

Both the laminate sheet and the substrate material should be ordered sufficiently in advance of fabrication to allow time to reduce internal moisture. During cold months, store laminate sheets and substrate material in a heated room with moving air. During periods of warm weather with high humidity, still air is preferable.

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 an appropriate acclimation between 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 362/367 and 372/377 will postform at a nominal sheet temperature range of 325°F to 350°F (163°C to 176°C) in 20 \pm 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.

5. Warranty

6. Maintenance

7. Technical Services

For samples, literature, questions or technical assistance, please contact our toll-free Hotline at (800) 433-3222, Monday through Friday, 8 am - 5 pm, CST.

Specification Form

Surface shall be Wilsonart® Virtual Design Library Temple, Texas 76503-6110	Laminate, produced by Wilsonart LLC,
Type: Specify 362, 367, 372 or 377	
Surface	
Color Number:	Color Name:
Finish	
Number:	Name:
 Edge Trim	
Color Number:	Color Name:
Adhesive	
Name:	Grade/Type:
Brand: Wilsonart® Adhesive	

Wilsonart® VDL Laminate Technical Data

Revised: September 15, 2020 © 2017 - 2020, Wilsonart LLC