Wilsonart® Laminate Basic Types (#107, #335, #350)
Technical Data

Manufacturer
Wilsonart International, Inc.
2400 Wilson Place
P.O. Box 6110
Temple, Texas 76503-6110
Phone: (254) 207-7000; (800) 433-3222
Fax: (254) 207-2384
Web Site: www.wilsonartlaminate.com

Product Description

Recommended Uses
Wilsonart® 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.

- **General Purpose (HGS) Type 107** is most frequently used for work surfaces on counters, islands, vanities, desks and tables. Typical vertical uses include surfacing for wall panels, teller cages and the front panels of workstations, such as those in hospitals, airports and restaurants. Type 107 is produced for both horizontal and vertical interior applications where the surface must be functional, durable and decorative.

- **Vertical Surface (VGP) Type 335** 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 335 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 350** 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 350 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.

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® 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® 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 full range of Wilsonart solid colors, stones, marbles, woodgrains, leathers and patterns. Please see actual sample before specifying.

NOTE: Not all sizes are available from stock; contact your Wilsonart representative for details on local availability. Minimums apply to non-standard designs and finishes in sizes other than 48"x96" and 60"x144". Please check with your Wilsonart representative.

Thickness and Weight

Description	107	335	350
Thickness	0.048" ± 0.005" (1.22mm ± 0.13mm)	0.028" + 0.001 - 0.004" (0.7mm + 0.03 - 0.10mm)	0.039" ± 0.005" (0.99mm ± 0.13mm)
Weight per square foot	0.322#	0.186#	0.260#

Technical Data

Physical Properties of General Purpose Laminates

NEMA Test	**Typical Wilsonart Type 107**	**NEMA Standard HGS**
Thickness	**0.048" ± 0.005" (1.22mm ± 0.13mm)**	0.048" ± 0.005" (1.2mm ± 0.13mm)
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**	No effect
High Temperature Resistance	**Slight effect**	Slight effect
Impact Resistance	**65" (1651mm)**	50" (1270mm)
Radiant Heat Resistance	**160 seconds**	125 sec. (min.)
Dimensional Stability Machine Direction Cross Direction	 **0.3%** **0.7%**	 0.5% 0.9%
Surface Wear Resistance (cycles)	**Meets or Exceeds 400**	400 (min.)
Formability	**Not applicable**	Not applicable
Blistering	**Not applicable**	Not applicable

Physical Properties of Vertical Surface Laminates

NEMA Test	**Typical Wilsonart Type 335**	**NEMA Standard VGS**	**NEMA Standard VGP**
Thickness	**0.028" + 0.001 - 0.004" (0.7mm + 0.03 - 0.10mm)**	0.028" ± 0.004" (0.7mm ± 0.10mm)	0.028" ± 0.004" (0.7mm ± 0.10mm)
Appearance	**No ABC def.**	No ABC def.	No ABC def.
Light Resistance	**Slight effect**	Slight effect	Slight effect
Cleanability (cycles)	**10**	20 (max.)	20 (max.)
Stain Resistance Reagents 1-10 Reagents 11-15	 **No effect** **Slight effect**	 No effect Moderate effect	 No effect Moderate effect
Boiling Water Resistance	**No effect**	No effect	Slight effect
High Temperature Resistance	**Slight effect**	Slight effect	Slight effect
Impact Resistance	**40" (1016mm)**	20" (508mm)	20" (508mm)
Radiant Heat Resistance	**120 seconds**	80 sec. (min.)	80 sec. (min.)

Dimensional Stability Machine Direction Cross Direction	 **0.5%** **0.8%**	 0.7% (max.) 1.2% (max.)	 1.1% (max.) 1.4% (max.)
Surface Wear Resistance (cycles)	**Meets or Exceeds 400**	400 (min.)	400 (min.)
Formability	**7/16" radius (11mm)**	Not applicable	1/2" radius (13mm)
Blistering	**45 seconds**	Not applicable	40 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.

Physical Properties of Postforming Laminate

NEMA Test	**Typical Wilsonart Type 350**	**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)	**Meets or Exceeds 400**	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 laminates, averaged from two specific tests:

Typical Flame Spread and Smoke Developed Properties

Product Type	Test Condition	Flame Spread	Smoke Developed
General Purpose Type 107	Unbonded	50	45
Vertical Surface Type 335	Unbonded	45	40

Postforming Type 350	Unbonded	60	35
General Purpose Type 107	Bonded with contact adhesive to particleboard substrate; 3/8"	40	100
Vertical Surface Type 335	Bonded with contact adhesive to particleboard substrate; 3/8"	40	155
Product Type	Test Condition	Flame Spread	Smoke Developed
Postforming Type 350	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 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 laminates conform to the voluntary standards of the American National Standards Institute/National Electrical Manufacturers Association (ANSI/NEMA) LD3-2005, for thickness, performance properties and appearance. Various grades of Wilsonart laminates 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 GREENGUARD Environmental Institute™ has awarded its GREENGUARD Indoor Air Quality Certification to Wilsonart Laminate. All Wilsonart Laminate product types were tested under the stringent GREENGUARD Standards for low-emitting products. 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 and 350 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 and 350, comply.

CERTIFICATE
OF COMPLIANCE

Wilsonart LLC

Wilsonart® Laminate

1110-420
Certificate Number

07/21/2004 - 03/09/2016
Certificate Period

Certified
Status

UL 2818 -2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

Product tested in accordance with UL 2821 test method to show compliance to emission limits on UL 2818. Section 7.1 and 7.2.

Building products and Interior finishes are determined compliant in accordance with California Department of Public Health (CDPH) Standard Method V1.1-2010 using the applicable exposure scenario(s).

Environment

GREENGUARD Gold Certification Criteria for Building Products and Interior Finishes

Criteria	CAS Number	Maximum Allowable Predicted Concentration	Units
TVOC (A)	-	0.22	mg/m³
Formaldehyde	50-00-0	9 (7.3 ppb)	µg/m³
Total Aldehydes (B)	-	0.043	ppm
4-Phenylcyclohexene	4994-16-5	6.5	µg/m³
Particle Matter less than 10 µm (C)	-	20	µg/m³
1-Methyl-2-pyrrolidinone (D)	872-50-4	160	µg/m³
Individual VOCs (E)	-	1/2 CREL or 1/100th TLV	-

(A) Defined to be the total response of measured VOCs falling within the C_6 – C_{16} range, with responses calibrated to a toluene surrogate.

(B) The sum of all measured normal aldehydes from formaldehyde through nonanal, plus benzaldehyde, individually calibrated to a compound specific standard. Heptanal through nonanal are measured via TD/GC/MS analysis and the remaining aldehydes are measured using HPLC/UV analysis.

(C) Particle emission requirement only applicable to HVAC Duct Products with exposed surface area in air streams (a forced air test with specific test method) and for wood finishing (sanding) systems.

(D) Based on the CA Prop 65 Maximum Allowable Dose Level for inhalation of 3,200 µg/day and an inhalation rate of 20 m³/day

(E) Allowable levels for chemicals not listed are derived from the lower of 1/2 the California Office of Environmental Health Hazard Assessment (OEHHA) Chronic Reference Exposure Level (CREL) as required per the CDPH/EHLB/Standard Method v1.1 and BIFMA level credit 7.6.2 and 1/100th of the Threshold Limit Value (TLV) industrial work place standard (Reference: American Conference of Government Industrial Hygienists, 6500 Glenway, Building D-7, and Cincinnati, OH 45211-4438).