## LANDMARKS COMMISSION APPLICATION

Complete all sections of this application, making sure to note the requirements on the accompanying checklist (reverse).

If you need an interpreter, translator, materials in alternate formats or other accommodations to access these forms, please call (608) 266-4635

City of Madison Planning Division 215 Martin Luther King Jr Blvd, Ste 017 PO Box 2985 Madison, WI 53701-2985 (608) 266-4635



1. LOCATION 101 N. Hamilton St Alder District: Project Address: 2. PROJECT Exterior illuminated blade signage Project Title/Description: This is an application for: (check all that apply) Legistar#: ☑ New Construction/Alteration/Addition in a Local Historic District or Designated Landmark (specify): **DATE STAMP** ☐ Mansion Hill ☐ Third Lake Ridge ☐ First Settlement ☐ University Heights ☐ Marquette Bungalows ☐ Land Division/Combination in a Local Historic District or to Designated Landmark Site (specify): DPCED USE ONLY ☐ Mansion Hill ☐ Third Lake Ridge ☐ First Settlement ☐ University Heights ☐ Marquette Bungalows ☐ Landmark □ Demolition ☐ Development adjacent to a Designated Landmark ☐ Variance from the Historic Preservation Ordinance (Chapter 41) Landmark Nomination/Rescission or Historic District Nomination/Amendment (Please contact the Historic Preservation Planner for specific Submission Requirements.) ☐ Informational Presentation ☑ Other (specify): SIGNAGE 3. APPLICANT Applicant's Name: Justin Chamberlin \_\_\_\_\_Company:\_\_\_\_Vital Signs, Inc. Address: 245 Horizon Drive #105 Verona 53593 \_\_\_\_\_\_ Email: justin@vitalsignsverona.com 608-845-3766 Telephone: Property Owner (if not applicant): Address: \_\_\_

NOTICE REGARDING LOBBYING ORDINANCE: If you are seeking approval of a development that has over 40,000 square feet of non-residential space, or a residential development of over 10 dwelling units, or if you are seeking assistance from the City with a value of \$10,000 (including grants, loans, TIF or similar assistance), then you likely are subject to Madison's lobbying ordinance (Sec. 2.40, MGO). You are required to register and report your lobbying. Please consult the City Clerk's Office for more information. Failure to comply with the lobbying ordinance may result in fines.

Date:

## **4. APPLICATION SUBMISSION REQUIREMENTS** (see checklist on reverse)

Property Owner's Signature:

All applications must be filed by 12:00pm on the submission date with the Preservation Planner. Applications submitted after the submission date *or* incomplete applications will be postponed to the next scheduled filing time. Submission deadlines can be viewed here: <a href="https://www.cityofmadison.com/dpced/planning/documents/LC">https://www.cityofmadison.com/dpced/planning/documents/LC</a> Meeting Schedule Dates.pdf

#### APPLICATION SUBMISSION REQUIREMENTS CHECKLIST:

In order to be considered complete, every application submission shall include at least the following information unless otherwise waived by the Preservation Planner. **All application materials should be submitted electronically to landmarkscommission@cityofmadison.com**. Please note that an individual email cannot exceed 20 MB.

- △ Landmarks Commission Application w/signature of the property owner.
- Narrative Description/Letter of Intent addressed to the Landmarks Commission, describing the location of the property and the scope of the proposed project.
  - Photographs of existing conditions;
  - ☑ Photographs of existing context;
  - Photographs of comparable historic resources within 200 feet of subject property;
  - ☑ Manufacturer's product information showing dimensions and materials.
- ☑ Architectural drawings reduced to 11" x 17" or smaller pages which may include:
  - ☑ Dimensioned site plans showing siting of structures, grading, landscaping, pedestrian and vehicular access, lighting, mechanicals, signage, and other features;
  - 🗵 Elevations of all sides showing exterior features and finishes, subsurface construction, floor and roof;
  - ☐ Floor Plan views of levels and roof;
  - □ For proposals of more than two (2) commercial or residential or combination thereof units, a minimum of two (2) accurate street-view normal perspectives shown from a viewpoint of no more than five (5) feet above existing grade.
- Any other information requested by the Preservation Planner to convey the aspects of the project which may include:
  - □ Perspective drawing

X	Other	Construction drawir	ngs. Night view.	Illumination method	. Aerial view.

Landmarks Commission staff will preliminarily review projects related to the construction of additions and/or new construction with Zoning staff in order to determine the completeness of the submission materials. Applicants are encouraged to contact Zoning staff to discuss projects early in the process to ensure the project considered by the Landmarks Commission meets Zoning requirements.

#### **CONTACT THE PRESERVATION PLANNER:**

Please contact the Preservation Planner with any questions.

City of Madison Planning Division 215 Martin Luther King Jr Blvd, Suite 017 PO Box 2985 (mailing address) Madison, WI 53701-2985 landmarkscommission@cityofmadison.com (608) 266-6552

#### LANDMARKS COMMISSI Complete all sections of this application, making sure to note the requirement of the req the requirements on the accompanying checklist (reverse). City of Madison Planning Division If you need an interpreter, translator, materials in alternate formats or other accommodations to access these forms, please call (608) 266-4635 215 Martin Luther King Jr Blvd, Ste 017 Madison, WI 53701-2985 (608) 266-4635 1. LOCATION Project Address: 101 N. Hamilton St Alder District: 2. PROJECT Project Title/Description: Exterior illuminated blade signage This is an application for: (check all that apply) ☑ New Construction/Alteration/Addition in a Local Historic District or Designated Landmark (specify): DATE STAMP ☐ Mansion Hill ☐ Third Lake Ridge ☐ First Settlement ☐ University Heights ☐ Marquette Bungalows ☐ Land Division/Combination in a Local Historic District or to Designated Landmark Site (specify): ☐ Third Lake Ridge DPCED USE ONLY ☐ Mansion Hill ☐ First Settlement ☐ University Heights ☐ Marquette Bungalows ☐ Landmark ☐ Demolition □ Development adjacent to a Designated Landmark ☐ Variance from the Historic Preservation Ordinance (Chapter 41) ☐ Landmark Nomination/Rescission or Historic District Nomination/Amendment (Please contact the Historic Preservation Planner for specific Submission Requirements.) □ Informational Presentation ☑ Other (specify): SIGNAGE 3. APPLICANT Applicant's Name: Justin Chamberlin Vital Signs, Inc. Company: 245 Horizon Drive #105 Verona Address: Street justin@vitalsignsverona.com 608-845-3766 Email: Telephone: Property Owner (if not applicant): Hamilton Property Owner's Signature: NOTICE REGARDING LOBBYING ORDINANCE: If you are seeking approval of a development that has over 40,000 square feet of non-residential space, or a residential development of over 10 dwelling units, or if you are seeking assistance from the City with a value of \$10,000 (including grants, loans, TIF or similar assistance), then you likely are subject to Madison's lobbying ordinance (Sec. 2.40, MGO). You are required to register and report your lobbying. Please consult the City Clerk's Office for more information. Failure to comply with the lobbying ordinance may result in fines.

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City of Madison Landmarks Commission 215 Martin Luther King Jr Blvd #017 Madison, WI 53701-2985

Subject: Letter of Intent for Illuminated Blade Sign at 101 North Hamilton St.

Dear Madison Landmarks Commission,

I am writing to express my intent and seek approval for the installation of a an illuminated, double sided, blade sign at 101 North Hamilton St. I believe that the sign designed proposed is aesthetically pleasing and compliments the history of the building in a modern way. I appreciate the opportunity to provide detailed reasons for this proposal.

## **Architectural Harmony:**

The proposed blade sign has been carefully designed to complement the architectural style of the building and the surrounding area. Frosted and shielded marquee light bulbs are used to bring the feeling of the early 1930s and 1940s when these types of signs were most gaining popularity. Hoping to evoke the feeling of a high end steakhouse of the era, and also connect to the interior elements used in the building which bring the viewer back to the styles of the early to mid 20th century.

The materials and color palette have been chosen to integrate with the existing facade, ensuring that the sign enhances the overall visual harmony. When combined, a dark blue and gold color palette creates a sophisticated and elegant look. The contrast between the deep, calming blue and the rich, warm gold conveys a sense of trustworthiness and opulence.

## **Historical Context:**

Recognizing the historical significance of the location, the design of the blade sign incorporates elements that evoke feelings of the past, but in a modern way. The design was chosen to draw attention and interest to the location. While not distracting and overpowering the style of the existing acritecture. We believe this approach aligns with the mission of the Landmarks Commission to preserve and celebrate the cultural and historical value of our community.

## **Enhanced Visibility:**

A blade sign is an effective way to increase visibility and attract attention to the busines. This increased visibility will not only benefit the occupants of the building but also contribute to the vitality and economic growth of the local community.

In conclusion, I believe that the installation of the proposed sign at 101 North Hamilton St. is not only aesthetically pleasing but also aligns with the values and goals of the Landmarks Commission. I am confident that this addition will contribute positively to the historical, architectural, and economic aspects of the community.

I appreciate your time and consideration of this proposal. I am available for any further discussions or presentations that may be required.

Thank you for time and attention

Sincerely,

Justin Chamberlin Owner and fabricator Vital Signs, Inc.



Looking South from N. Pickney St



Looking South East from N. Pickney St



Looking North from N. Hamilton St





Madison Children's Museum - 100 N. Hamilton St



**Bartell Theatre - 13 E Mifflin St** 



The Old Fashioned - 23 N Pinckney St #1



UW Credit Union - 44 E. Mifflin St













## DRAPER BROTHERS BLOCK

1867

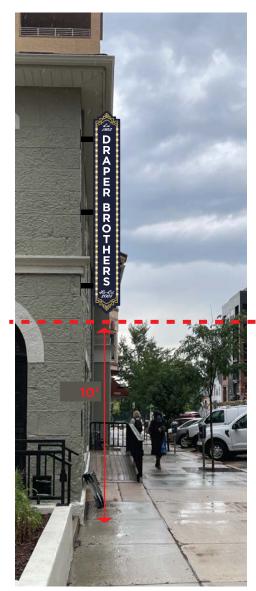
THE DRAPER BROTHERS BLOCK IS SIGNIFICANT AS ONE OF THE FEW REMAINING BUILDINGS OF NATIVE SANDSTONE FROM MADISON'S EARLIEST ERA OF COMMERCIAL DEVELOPMENT AND BEING ASSOCIATED WITH MADISON'S HISTORY, HAVING HOUSED A MEAT MARKET ON THE GROUND FLOOR FOR SEVENTY FOUR YEARS. THE LOCATION ACROSS HE STATE CAPITOL WAS USED TO FULL ADVANTAGE; THE FOOTPRINT ALLOWED FOR NCE DIRECTLY ON THE CORNER AND FACING THE CAPITOL THE LARGE ARCHED OPENINGS FOR THE ENTRANCE AND DISPLAY WINDOWS IMPART A DRAMATIC SCALE TO AN OTHERWISE SMALL BUILDING.

> DESIGNATED OCTOBER 15, 2002 MADISON LANDMARKS COMMISSION

PLAQUE IS PROPERTY OF THE CITY OF MADISON

## DRAPER BROTHERS CHOPHOUSE - 101 N. HAMLTON ST

SIGN ON BUILDILNG / SIGN ELEVATION



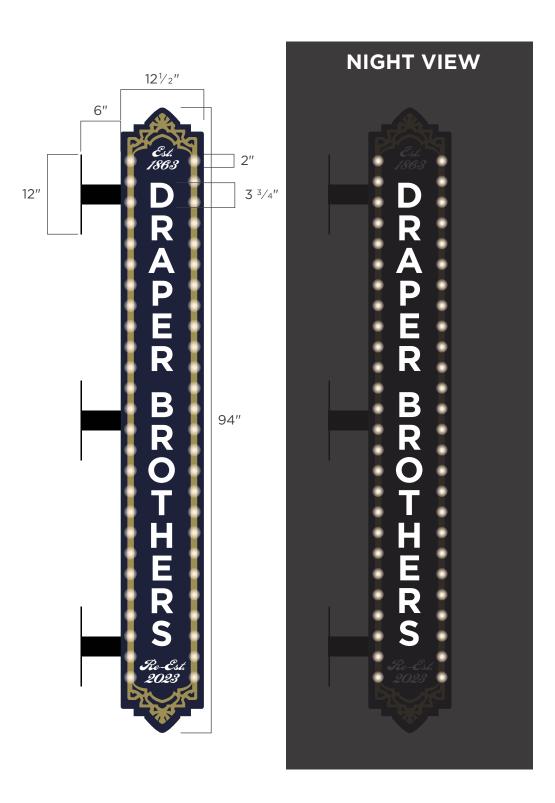
FACING EAST ON E. MIFFLIN ST.



FACING NORTH ON E. MIFFLIN ST. TOWARDS 101 N. HAMILTON

## DRAPER BROTHERS CHOPHOUSE - 101 N. HAMLTON ST

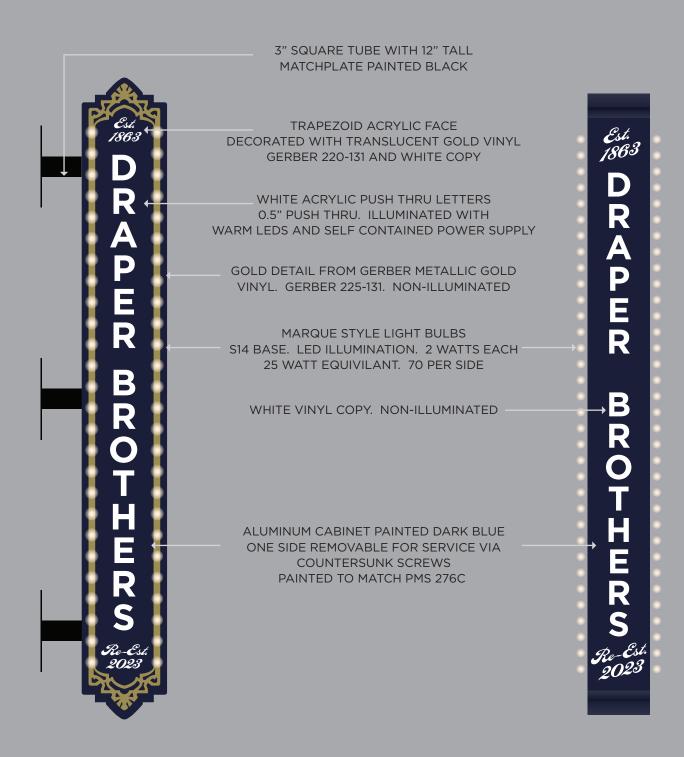
DIMENSION / NIGHT / PERSPECTIVE VIEW







Perspective View to show that letters and bulbs are shielded on all sides by 3" deep flange Bulbs meaesure 1.75" diameter. Colors adjusted to show depth

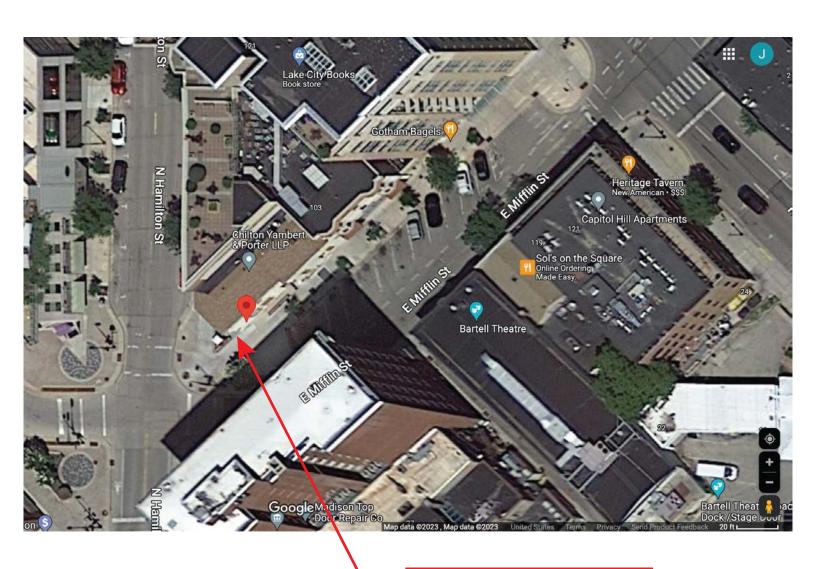


FACE #1 AND #2
FACING EAST AND WEST

FACE #3 (SIDE)
FACING SOUTH / AWAY FROM BUILDING



SIGNABLE AREA = 114"W x 244.5"T = 193.56 SQ/FT



SIGN LOCATION

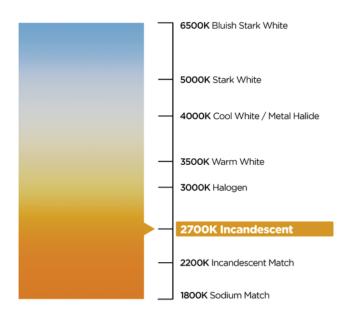
## DRAPER BROTHERS CHOPHOUSE - 101 N. HAMLTON ST

MARQUE BULB DETAIL





## **Color Temperature in K (Kelvin)**



64 MARQUE STYLE BULBS PER SIDE

ILLUMINATION METHOD: LED

BRAND: PLT SOLUTIONS

**BULB SHAPE: S14** 

LENS: FROSTED

COLOR: SOFT WHITE (2700K)

LIFE HOURS: 15,000

WATTAGE: 1 WATT (25 WATT EQUVILANT)

LUMENS: 120

BASE: E26 MEDIUM

**UL LISTED** 



## **Duratex Cast Acrylic Product Overview**

#### **Dimensions**

		Standard Sizes				
Inches	37.4"x72.8"	39.4"x78.7"	48"x72"	48.4" x 84.6"	48"x96"	50"x98"
mm	950x1850	1000x2000	1220x1830	1230x2150	1220x2440	1290×2480

Large Sizes						
Inches	53.15"x78.7"	60.6" x 60.6"	64.6"x64.6"	74"x74"	62.2"x98"	74"x98"
mm	1350x2000	1540 x1540	1640x1640	1880×1880	1580×2490	1880×2490

Extra Large Sizes						
Inches	51.2" x 100"	50" x 120"	51.2"x122"	60"x 120"	80"x120"	
mm	1300x2540	1270x3050	1300x3100	1525x3050	2030x3050	

## **Thickness**

<b>Inches</b> 0.06" - 2" <b>mm</b> 1.5 - 50
---

## **Finishing**

Clear, Opal, Transparent (tint), In-transparent (opaque/ matted), Fluorescent (Spotlight), Satin

## **Accessories**

Acrylic Rod/ Square	Inches	mm
Length	47.25 - 78.74	1,200 - 2,000
Thickness	0.2 - 1.5	5 - 38
Acrylic Hinge	Inches	mm
Length	0.79, 1.18, 1.77	20, 30, 45
Acrylic Round Tube	Inches	mm
Length	78.74	2,000
In-Out Diameter		6x8; 8x10; 8x12; 16x20; 21x25; 26x30; 31x35; 36x40; 41x45; 46x50; 56x60



Acrylic Triangle/Corner	Inches	mm
Length	47.25 - 78.74	1,200 - 2,000
Thickness	0.12 - 0.31	3 - 8

## **Duratex Cast Acrylic Thickness Tolerance**

Thickness	Standard Size	Large Size	Extra Large Size
3mm	10% Tolerance	14% Tolerance	17% Tolerance
4mm	8% Tolerance	12% Tolerance	14% Tolerance
5mm	6% Tolerance	10% Tolerance	12% Tolerance
6mm	6% Tolerance	10% Tolerance	12% Tolerance
8mm	5% Tolerance	8% Tolerance	10% Tolerance
10mm - 15mm	4% Tolerance	6% Tolerance	8% Tolerance
18mm - 50mm	4% Tolerance		

## **Duratex Cast Acrylic Chemical Features** (Resistant Properties to Chemical Agents)

Sulfuric Acid 60°C	Stable to 60%
Hydrochloric Acid 60°C	Stable to 30%
Nitric Acid 60°C	Stable to 20%
Caustic Soda 60°C	Stable to 50%
Aqueous Ammonia 60°C	Stable to 18%
Acetic Acid 60°C	Dissolve
Ethyl Acetate	Dissolve
Toluene	Dissolve
Ethylene Dichloride	Dissolve
Benzene	Dissolve
Methyl Alcohol	Dissolve
Dimethylformamide	Dissolve
Acetone	Dissolve
Aniline	Dissolve

## **Duratex Cast Acrylic Average Physical Properties**

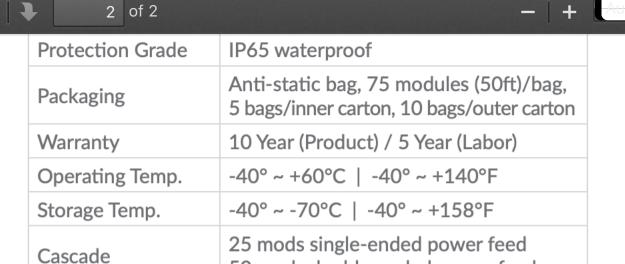
Properties	Unit	
Specific Gravity (ASTM D792-60 T)		1.19
Hardness (ASTM D 785-62)		HNC - 96
Water Absorption (ASTM D570-63)	%	0.35
Tensile Strength: (ASTM D638-61T)		
Tensile strength at yield	Kg/cm <sup>2</sup>	709
Tensile strength of break	Kg/cm <sup>2</sup>	696
Tensile modulus	Kg/cm <sup>2</sup>	29,532
Elongation at break	%	8
Bending Strength:		
Flexural Strength	Kg/cm <sup>2</sup>	1,052
Flexural Modulus	Kg/cm <sup>2</sup>	31,264
Impact Strength (ASTM D256-56)	Kg/cm <sup>2</sup>	1.1
Shear Strength (ASTM D732-46)	Kg/cm <sup>2</sup>	600 - 650
Transmittance: (ASTM S 1003-61)		
Full rays	%	93.3
Parallel rays	%	HAZE= 0.27
Specific Heat	Cal/g/°C	0.35
Heat Distortion Temperature (4.6kg/cm) (ASTM D648-56)	°C	100
Coefficient of Heat Conductivity	Cal/s.cm <sup>2</sup>	4.5 X 10 <sup>-4</sup>
Coefficient of Linear Expansion (ASTM D696-44)	Cm/cm/°C	6.5 X 10 <sup>-5</sup>
Ultimate Temperature of Continuous Operation	°C	60 - 90
Flammability (ASTM D635-63)	Mm/ min	33
Surface Resistivity at 28°C	Ohm	> 1016
Volume Resistivity (ASTM D257-61)	Ohm cm	> 1015
Thermoforming Ranges	°C	140 - 180
Dielectric Strength (ASTM D149-64)	Kv/Mm	20



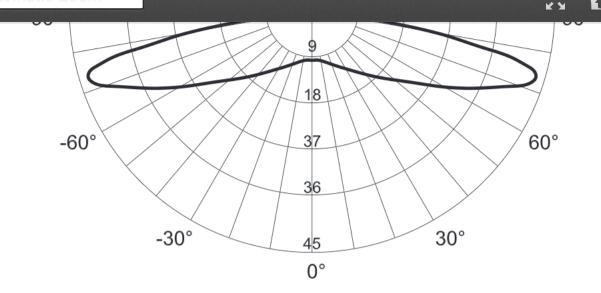
## **Duratex Cast Acrylic Fire Rating**

Duratex Cast Acrylic burn with little smoke generation. Its combustions gases are non-toxic and noncorrosive. It is classed as:

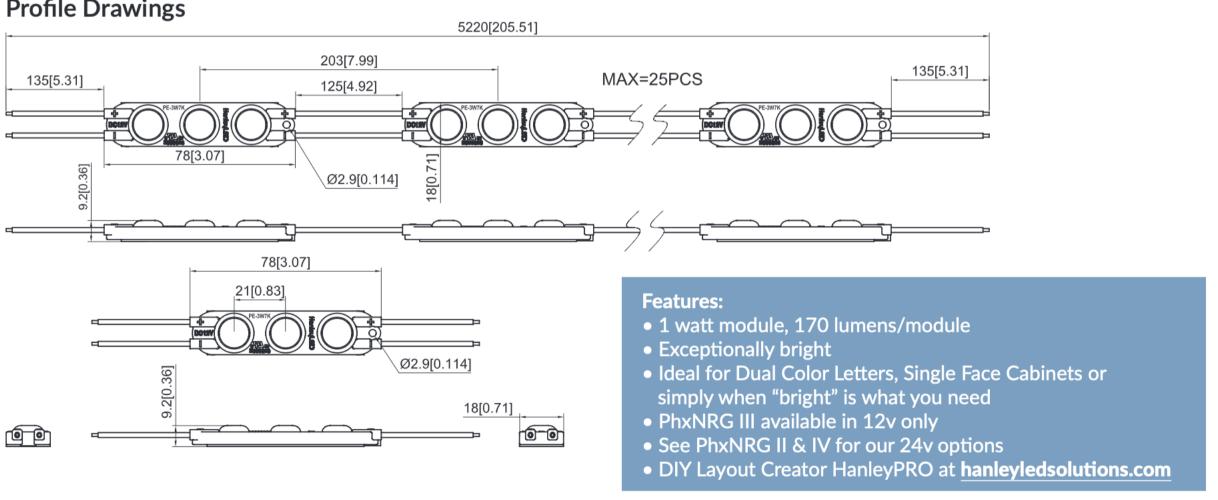
- Classification E according to Euro Norm (DIN EN SO 11925: 2: 2002-07)
- B2, with no burning droplets, according to DIN 4102
- M4 (no droplets) according to NF 92500+
- Class 3 classification according to BS476 part 7
- Category TP (b) according to BS 2782, method 508A for thermoplastics material as defined by Building Regulations
- UL 94HB (Underwriters Laboratory No. E514392)



50 mods double-ended power feed



## **Profile Drawings**





## **Efficient Premium Power Supply**

## **Efficient Series**

## **H60W-PPSE**





## **Output Characteristics**

Rated Output Voltage	12V
Rated Output Current	5A
Rated Output Power	60W
Output Voltage Accuracy	±5%

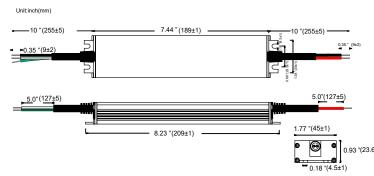
## **Input Characteristics**

Input Voltage Range	100 ~ 277Vac
Input Frequency Range	50HZ ~ 60HZ
Input Current	≤1.3A/120Vac
Inrush Current (cold start)	≤60A (100-277Vac)
Efficiency	≥85%
Power Input	1.5A Max

#### **Protective Characteristics**

Over-Current Protection Short-Circuit Protection Over-Voltage Protection Over-Temperature Protection

## **Profile Drawings**



#### Features

- Budget friendly 100v-277v LED driver solution
- High performance 12 volt power supply
- IP68 indoor/outdoor use, dry and damp locations
- Variable input voltage: 100-277Vac
- Working temperature: -30°C ~ +60°C
- OVP, OCP, SCP, OTP protection function
- Rating: Class 2, for use with LEDs and LED signage
- UL Retrofit Kit Classified

## Warranty

Product	Labor
5 years	1 year labor with any other qualified LEDs

## **Environmental Characteristics**

Working Temperature	-30° ~ +60°C
Working Humidity	10 ~ 95% RH (non-condensing)
Storage Temperature	-35° ~ +65°C
Storage Humidity	10 ~ 95% RH
IP Rating	IP68
Vibration	10 ~ 500HZ, 1mm 15 minutes (for X, Y, Z each axis)

## Safety and EMC

Safety Rating	IP68, Class 2	
Dielectric Strength (Hi-Pot)	I/P-O/P 3KVac/5mA/1min I/P-Case 1.5KVac/5mA/1min	
Insulation Resistance	100MOhm Max/500Vdc/1min	
Grounding Resistance	≤.5m0hm	
EMC	FCC part 15classB	

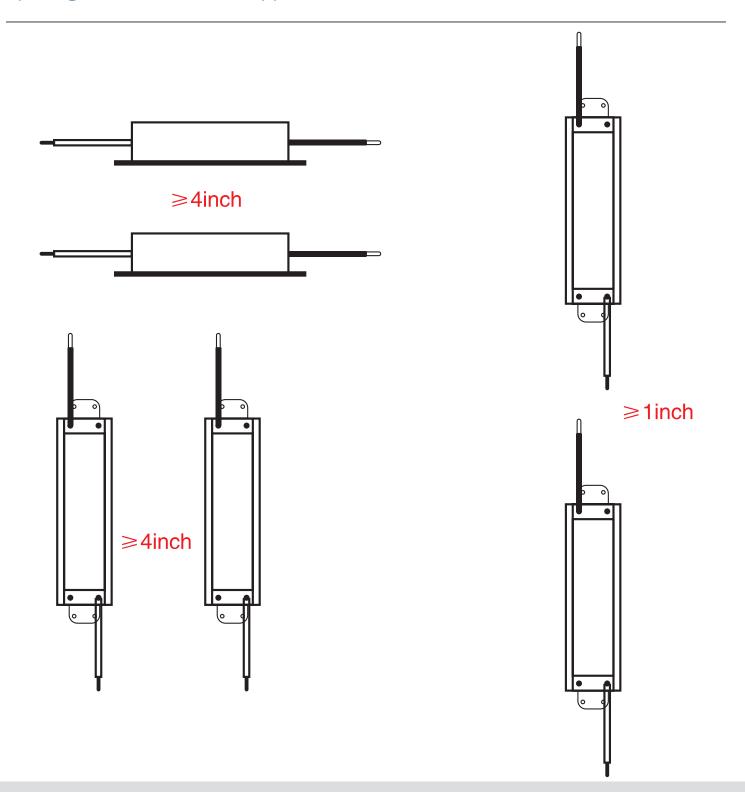
#### Other Characteristics

MTBF	200Khrs. MIL-HDBK-217F(25°C)
Size 209*45*23.6mm   8.23*1.77*.93in (L*W*H	
Weight	.4KG   .88LB

- Ensure that the ground wire is properly grounded and ensure it does not come into contact with the neutral wire.
- Ensure the power supply position has sufficient airflow.
   Operating temperature must be between -30°C to +60°C.
- Do not overload the power supply with multiple appliances.
- Power supply operates at high temperature. To avoid injury, do not touch while in use.
- Do not install with power connected or during an electrical disturbance.
- Do not attempt to install by yourself. Please contact the supplier with any questions.
- Please read and follow the instructions carefully before installing. Ensure all contact points are in good working order.
- Please pay attention to the environment, and check for any unsafe conditions.



## **Spacing Between Power Supplies**



UL 48 Standard requires spacing between LED power supplies shall be at least 1 inch from end to end and 4 inches from side to side. This is to ensure adequate heat dissipation. Greater spacing may be required when heat ventilation in the sign or power supply enclosure is not adequate.



## COLORED LED VINTAGE 514 BULB

Add a splash of color to your accent, party, or holiday lighting with these colored LED vintage S14 bulbs.

## **FEATURES**

- Energy efficient replacement for 11W incandescent
- Shatter-resistant plastic lens
- Tinted finished shows off two vertical filaments; frosted finish diffuses the light to help reduce glare
- Standard household medium (E26) base
- Dimmable; see dimmer compatibility sheet for a full list of compatible dimmers

## LISTINGS

- UL Listed for wet locations
- FCC
- RoHS
- Rated for use in enclosed fixtures

## PERFORMANCE

- CCT: Blue, Green, Red, Pink, Orange, Yellow, Frosted (2700K)
- Rated Lifetime L70: 15,000 hours

#### WARRANTY

1 year prorated warranty; see pltsolutions.com for warranty details

## **APPLICATIONS**

- Wall Sconces
- Decorative Fixtures
- Patio String Lights
- Signs and Marquees

project name	type
catalog number	
comments	voltage
approved by	date









	Power Consumption	2 Watt		
	Lumens	120, 180		
	Efficacy (LPW)	60, 90		
PERFORMANCE	CRI	80		
	Beam Angle	330°		
	сст	Blue, Green, Red, Pink, Orange, Yellow, Frosted (2700K)		
	Life (L70)	15000		
ELECTRICAL	Input Voltage	120V		
CONCERNICATION I	Shape	S14		
	Filament Type	Vertical		
CONSTRUCTION	Base	E26		
	Finish	Tinted; Frosted (2700K)		
	Certifications	UL Listed; FCC		
LISTINGS	Material Usage	RoHS – No mercury or lead		
	Environment	Wet Location Rated; Enclosed Fixture Rated		

## **PERFORMANCE SUMMARY**

Item #	Shape	Lumens	Wattage	LPW	Voltage	Replaces	ССТ	CRI	Finish	Life/ Hours	Dimmable
PLTS-12323	S14	25	2	12	120V	11W Incan.	Blue	_	Blue Tint	15,000	Yes
PLTS-12324	S14	175	2	85	120V	11W Incan.	Green	_	Green Tint	15,000	Yes
PLTS-12325	S14	35	2	17	120V	11W Incan.	Red	_	Red Tint	15,000	Yes
PLTS-12326	S14	180	2	90	120V	11W Incan.	Pink	_	Pink Tint	15,000	Yes
PLTS-12327	S14	130	2	65	120V	11W Incan.	Orange	_	Orange Tint	15,000	Yes
PLTS-12328	S14	222	2	110	120V	11W Incan.	Yellow	_	Yellow Tint	15,000	Yes
PLTS-12329	S14	180	2	90	120V	11W Incan.	Frosted (2700K)	80	Frosted	15,000	Yes

## DIMENSIONS



## **DIMENSIONS**

Height: 3.27"

Diameter: 1.77"

## **WARNINGS**

 Only use this LED vintage S14 bulb with the dimmers listed in the compatibility list. Using this bulb within compatible dimmers may cause performance issues including humming, buzzing, flickering, and poor dimming performance.



#### PLT 1 Year Limited Warranty Policy on LED Bulbs

Thank you for your purchase of PLT LED lighting products. All our lamps are manufactured with high quality parts and tested extensively for defects. PLT (the "Seller") warrants that its lamps and fixtures listed below (the "Product") are, at the time of delivery to the Buyer, in good working order and free from defects in material and workmanship.

Energy Star certified products have an extended warranty. Please see the spec sheet of your particular product for warranty details.

If a Product fails to conform with this limited 1 Year Warranty, Seller will at its sole option, either (i) replace the Product at no charge or (ii) provide Buyer a credit for a future Product purchase calculated as follows: (Invoice price of the Product (\$) x undelivered Warranty period (operating hours)/ intended Warranty period (operating hours).

## **PLT Product Types Covered**

A-Type, B-Type, Par38, Par30, Par20, Par16, MR16, MR11, BR40, BR30, R20, GU10, G-Type, and Filament

#### **Warranty Period**

The Warranty Period for these lamps is **1 Year** from distribution center shipment.

NOTE: Replacement of the Product does not include any removal or reinstallation costs or expenses, including and without limitation labor costs or expenses, shipping costs to return non-conforming Products or any damage that may occur during the return of the Product to the Seller. If Seller chooses to replace the Product and is not able to do so because Product has been discontinued or is not available, Seller may replace it with a product of comparable functionality.

This limited Warranty is subject to the following additional conditions:

- A) The Product has not been subject to abuse, mishandling, alteration, accident, electrical current fluctuations, acts of gods, neglect, failure to follow operating, maintenance or environmental instructions prescribed by Seller in writing or services performed by someone other than Seller or its duly authorized service provider in writing.
- B) Adequate Product operating records are kept and made available to the Seller if requested.
- C) A Seller representative has access to the Product installation and the fixture used to operate it.
- D) Product has been purchased directly through Seller's authorized distributor or dealer.
- E) Product has been purchased and used in regions that are within jurisdiction of the United States and Canada.
- F) Returned Product includes Return Goods Authorization (RGA) and original proof of purchase.

Replacement Product or parts provided under the terms of this warranty are warranted for the remainder of the warranty period of the original Product or original parts they replace. LIMITED WARRANTY IS VOID IF THE PRODUCT IS NOT USED FOR THE PURPOSE FOR WHICH THE PRODUCT IS MANUFACTURED. This warranty applies only to Products that are operated within Seller specifications and operated in lighting equipment designed and approved for the application and in environmental conditions (temperature, humidity and air movement) within the normal specified operating range of

the system. Warranty is not applied for any Product, which are used in violation of any standard, code or instructions for use.

EXCEPT FOR THE EXPRESSED WARRANTY SET FORTH ABOVE, SELLER PROVIDES PRODUCTS AS-IS AND MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, STATUTORY OR OTHERWISE, REGARDING THE PRODUCTS, THEIR FITNESS FOR ANY PARTICULAR PURPOSE, THEIR MERCHANTIBILITY, THEIR QUALITY, THEIR NONINFRINGEMENT, OR OTHERWISE. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY SPECIAL, COMPENSATORY, INDIRECT, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING BUT WITHOUT LIMITATION, DAMAGES RESULTING FROM LOSS OF USE, PROFITS, BUSINESS OR GOODWILL WHETHER NOT SELLER HAS BEEN ADVISED OF THE POSSIBILITY THEREOF. SELLER IS ONLY BOUND BY ABOVE EXPRESSED WARRANTY. NO OTHER EXPRESSED WARRANTY OR GUARANTEE GIVEN BY ANY PERSON OR ENTITY WITH RESPECT TO THE PRODUCT SHALL BIND SELLER.



## Low VOC Satin Acrylic Polyurethane

## SATIN VOC MAP® SPECIFICATIONS

Satin VOC MAP® (Matthews Acrylic Polyurethane) is a low VOC, UV resistant, aliphatic, acrylic polyurethane system engineered for extreme color and gloss retention. Lead and heavy metal free.

#### **Performance Data:**

Excellent weather resistance even in harsh industrial environments. Slick surface resists dirt, pollutants, and abrasion. Withstands chipping, color-fade, gloss loss and graffiti on interior and exterior surfaces.

#### **Characteristics:**

Gloss levels based on a 60 degree gloss meter.

Matte:0-8 degreesSatin:15-30 degreesSemi gloss:40-60 degreesHigh gloss:80+ degrees

#### **Performance Characteristics:**

Pencil Hardness	2Н
Flexibility	1/8" Mandrel, No Cracks
Impact Resistance	
Direct @ 1 Week	120 in/lbs
Theoretical Coverage (Varies	s with Color)
1 mil DFT @ 100% Transfer E	
	per (RTS) gal
Flash Point (Tag Closed Cup	<b>o)</b> Below 80°F/28°C
Recommended Dry Film Th	ickness2.0 mil DFT
min.	
Volume Solids	36% - 43%
Volume Solids (RTS)	29% - 33%
Application Conditions	60°F/16°C Minimum 100°F/38°C Maximum
Relative Humidity	85% Maximum
Substrate Temperature	5° Above Dew Point, 60°F/16°C Minimum
EquipmentConvention	al, HVLP, or Electrostatic

## 3.5 VOC information using Low VOC reducer

VOC Actual RTS	1.73 - 3.12 lbs/gal
VOC Actual RTS	207 - 373 g/L
VOC Regulatory (less water less exempt) RTS	2.95 - 3.52 lbs/gal
VOC Regulatory (less water less exempt) RTS	353 - 421 g/L

Important: to maintain 3.5 VOC compliance when using accelerators, use no more than 0.5oz per RTS qt of the following accelerators: 287 437SP, MAP-LVA117, 47117SP, or 287484SP.

## 2.8 VOC information using Exempt reducers

VOC Actual RTS	1.09 - 1.28 lbs/gal
VOC Actual RTS	130 - 153 g/L
VOC Regulatory (less water less exempt) RTS	2.24 - 2.8 lbs/gal
VOC Regulatory (less water less exempt) RTS	268 - 331 g/L
	1 2510 7771 115

Important: to maintain 2.8 VOC compliance, use only MAP-LVA117 accelerator.

For complete VOC information, visit MatthewsPaint.com > Quick Links > VOC Data

Performance Characteristics continued on back...

Product Information Effective 01/20 MPC229

## SATIN VOC MAP® SPECIFICATIONS

Low VOC Satin Acrylic Polyurethane

#### **Performance Characteristics Continued:**

Solvent Resistance 30 minute contact after 7 days curing
Chemical Resistance 10% Solutions Acids Excellent Alkalis Excellent
Salt Spray - 2000 hours
Gloss Retention – Weatherometer         1000 hours @ 20°         88%           1000 hours @ 60°         97%
Abrasion Resistance 1000 revolutionsCS-10 wheel .248 grams
<b>Caution:</b> All 2 component cross-linking stops or slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, poor water and chemical

resistance, decreased durability and improper curing will occur.

Important:

Refer to SDS for safety guidelines. Use in a well ventilated area with appropriate Personal Protective Equipment (PPE) to protect eyes, skin, and respiratory system.

See Safety Data Sheet and Labels for additional safety information and handling instructions.

EMERGENCY MEDICAL OR SPILL CONTROL INFORMATION - US (412) 434-4515; CANADA (514) 645-1320; Mexico 01-800-00-21-400 Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the general public. Products mentioned may be hazardous and should only be used according to directions, while observing precautions and warning statements listed on label. Statements and methods described are based upon the best information and practices known to Matthews Paint. Procedures for applications mentioned are suggestions only and are not to be construed as representations or warranties as to performance, results, or fitness for any intended use, nor does Matthews Paint warrant freedom from patent infringement in the use of any formula or process set forth herein. If you require technical assistance, please call us toll-free 800/323-6593.



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# **Gerber High Performance Series 220 Premium Film manufactured by 3M**

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## **DESCRIPTION**

Gerber High Performance Series 220 is a high performance cast vinyl film made exclusively for Gerber by 3M. Gerber High Performance Series 220 is a durable, dimensionally stable vinyl with a clear, pressure-sensitive adhesive designed to withstand a variety of severe weather and handling conditions. It is available in over 100 colors and several finishes including, opaque gloss, matte, metallic, and Clear Enamel Receptive, in both punched and unpunched formats. Series 220 comes on a paper liner.

15-inch Series 220 is an EDGE READY™ Material.

## PRODUCT LINE

Property	Description
Film	2-mil cast vinyl
Thickness	2.5 to 3.5 mil
(film and adhesive)	(0.063 to 0.09 mm)
Film Color	Over 100 colors



Property	Description
Adhesive	Clear, pressure sensitive
Liner	78-lb white kraft liner
Application substrates	For flat surfaces with and without rivets, or simple curved surfaces
Application surfaces	Flexible signage, glass, metal, acrylic, polycarbonates, fiberglass, painted surfaces
Removability	Permanent

#### INTENDED APPLICATIONS

Series 220 is suitable for a wide range of commercial and industrial applications including vehicles, exterior and interior signage, window markings, display graphics, etc. It can be used on flat surfaces with and without rivets or simple curved surfaces. Series 220 has a clear adhesive and is therefore suitable for use as a cut vinyl in window/transparent substrate applications, as well as opaque applications.

## PERFORMANCE LIFE (UNPRINTED)

The exterior performance life of Gerber High Performance Series 220 is based upon field experience and exposure tests conducted throughout the United States. When the graphics are processed and used according to Gerber recommendations, they should have an expected performance life up to the values shown in the charts that follow. The actual performance depends on the following conditions:

- Selection and preparation of substrate
- Application methods
- Exposure conditions
- Cleaning methods

Application Specifics		Performance Life (years): Unprinted		
		U.S. <sup>1, 4</sup>	S. W. <sup>2, 4</sup>	
Signs Only Solid colors, except metallic colors and	Unprinted, applied to first surface	7	5	
*Vertical	*Vertical	Unprinted, applied to second surface	7	5
Vehicles Only Solid colors, except metallic colors and clear	Unprinted, applied to first surface	8	5	
	Unprinted, applied to second surface	8	5	



	Signs and Vehicles Metallic colors and Clear	Unprinted, applied to first surface	5	3
Application Specifics			Performance Life (years): Unprinted	
		U.S. <sup>1, 4</sup>	S. W. <sup>2, 4</sup>	
**Non- Vertical Exposure <sup>3</sup>	Vertical Unprinted, applied to first surface		5	Not Recommended

<sup>\*</sup>Face of graphic is vertical  $90^{\circ} \pm 10^{\circ}$ .

- 1 For exterior performance life statement outside of the United States, contact Gerber Scientific Products, Inc.
- 2 The United States Desert Southwest area includes Arizona, New Mexico, and the desert areas of California, Nevada, Utah, and Texas. A detailed map is available upon request.
- 3 Non-vertical applications can be used to identify commercial vehicles from the air. Non-vertical applications expose the film to the maximum effect from sunlight and the environment. There are foil and film restrictions for horizontal applications. The film may change color, lose gloss, and chalk. The following performance statements assume that only legibility is required.
- 4 Unprinted films 220-20, 220-163, 220-263, 220-273, and 220-286 may chalk with age (Matte White, Dark Magenta, Perfect Match Red, Process Magenta, and Jade Green). This is considered normal and acceptable wear.

#### SHELF LIFE AND STORAGE

Apply film within one year of receipt. Printed graphics should also be applied within one year. Film and printed graphics (with or without premask) should be kept in a clean area free from excessive moisture and direct sunlight. Maintain temperature at less than 100°F (38°C).

Use a paper interleaf between layers of stacked or rolled printed materials. Do not stack printed graphics face to face.

#### PRINTING

Use Gerber Series 220 settings when printing with the GERBER EDGE®, GERBER EDGE 2®, or GERBER EDGE FX™ thermal transfer printing systems.

GerberColor™ Finishing (GCF), GerberColor Spot (GCS), GerberColor Process Pro™ CMYK (GCP), GerberColor Medal (GCM), GerberColor Transparent (GCT), and GerberColor Special Effects (GCX) Series Foils, and ColorSet™ Foils can be used to print onto Series 220.

Gerber standard tack application tape is required to be used as the transfer carrier for all printed graphics.

Recommended working environment is as follows:

- Operating temperature: 50°F to 95°F / 10°C to 35°C
- Recommended temperature for assured printing accuracy: 68°F to 78°F / 20°C to 26°C
- Operating humidity: 20% to 90% relative humidity, non-condensing (maximum range; actual range varies by material used)



<sup>\*\*</sup>Face of graphic is more than 10° from 90°. Solid colors only.

#### PROTECTING GRAPHICS

Gerber Scientific Products®, Inc. offers products that are designed to protect vinyl and printed graphics.

Gerber Guard™ manufactured by 3M is a durable, dimensionally stable, glossy vinyl overlaminate. This film has a petrochemical-resistant construction and is intended to be used when markings may be exposed to petrochemical spillage and/or severe handling conditions.

Gerber UVGuard™ is a custom-formulated, 1-mil, clear, TEDLAR® polyvinyl fluoride (PVF) laminating film designed to further expand the resistance to weathering of printed graphics for up to five years.

Gerber UVGuard™ 9 manufactured by 3M is a 2-mil, glossy, clear, mildew-resistant, polyvinyl fluoride laminating film with a petrochemical-resistant adhesive system. It is designed to further expand the resistance to weathering of printed graphics up to nine years. Gerber UVGuard 9 has the highest protection from UV fade.

Gerber StrikeGuard™ is an 8.0-mil, clear, glossy overlaminate film designed for a variety of applications. This heavy-duty overlaminate film is ideal for the protection of graphics, up to two years, and is especially beneficial where printed graphics experience severe handling and forceful impact. Gerber StrikeGuard is not recommended in applications that require petrochemical protection or where additional UV or vandal resistance is desired.

Abrasion Guard™ SPF (Sign Protection Formula) is a clear, top-coat GerberColor Finishing Series (GCF) Foil designed for use with EDGE® Series thermal transfer printing systems, to protect graphics from moderate contact and exposure to harmful effects of UV rays. It has an expected performance life of up to five years (when printed by itself). When applied as a protective overprint on other GerberColor Foils, Abrasion Guard SPF will extend the life of the base color by up to 30%.

#### **CUTTING**

Series 220 can be cut on any Gerber 15-inch sprocketed plotter, plus any FasTrack™ or ODYSSEY™ plotters. A 30° SuperSharp blade is recommended for tangential plotters (HS15™, HS15 Plus, GSX™, GS15™, GS750™, HS750™, SMIVB™). A 45° blade should be used with swivel knife plotters (FasTrack™, EmbossTrack™, enVision™, and ODYSSEY). Plotters can be set to full speed.

The minimum recommended cutting height for text is .375 inches. This recommendation is based upon evaluations using upper case Helvetica Medium copy. Users should verify their own ideal cut heights based upon their specific cutting equipment. The user should perform a test cut to determine the ideal tool force setting.

Excess film should be weeded within 24 hours of cutting to minimize the effect of adhesive flow.

#### SUBSTRATE PREPARATION

Before applying your graphic, wash the surface of your substrate with warm water and detergent. Do not use soaps or other cleaners with lotions or creams as they will leave a residue. Thoroughly rinse the surface and allow it to completely dry.



Saturate a clean paper towel with a solvent-based cleaner and wipe the substrate surface. Be certain to follow all manufacturer safety guidelines when using any solvent. Dry the surface with a lint-free paper towel before the solvent evaporates.

If applying to glass, wipe the surface with a 2 to 1 mixture of water and isopropyl alcohol. Glass temperatures can vary across the surface. These temperature variations can produce stresses that may cause the glass to break. Use caution when applying to glass.

Some polycarbonate substrates may weaken when certain vinyl films are applied to them. Because of this possibility, the user will need to determine if safety items such as helmets, safety shields, and some windshields are compatible with their vinyl's adhesive.

Many paint systems (e.g. two-part urethane) and some plastic substrates will outgas if they are not fully cured. Outgassing can cause permanent bubbling in most films; substrates should be tested for outgassing prior to final application. Plastics should be dried at 150°F (66°C) for 24 hours prior to application to help avoid outgassing.

## **APPLICATION TECHNIQUES**

Both wet and dry application methods may be used with Series 220 and panels should be overlapped. Gerber standard tack application tape is recommended for all EDGE-printed applications (see "Printing" section for important information on applying EDGE graphics.)

#### MAINTENANCE

To clean printed graphics, use a mild, non-abrasive soap with a soft cloth or sponge. Avoid using alcohol-based cleansers or soaps containing grit or abrasives. Automated vehicle washing systems that use rotary cleaning brushes should also be avoided.

## **PHYSICAL PROPERTIES**

Property	English Units	Metric Units
Dimensional Stability	0.008 in	0.2 mm
Tensile Strength	5 lb/in at 73°F	0.9 kg/cm at 23°C
Reverse impact resistance	No cracking at 73°F or 40°F	No cracking at 23°C or 4°C
Minimum Application Temperature	40°F	4°C
Service Temperature Range	-40°F to 225°F	-40°C to 107°C

## ADHESIVE CHARACTERISTICS

Material	English Units - Pounds/inch	Metric Units - Kg/cm
Acrylic	4	0.7
Acrylic enamel	4	0.7



Alodine aluminum	8	1.4
Chrome plating	5	0.9
Fruehauf prepainted panels	4	0.7
Polycarbonate	4	0.7
Urethane paints	4	0.7

## CHEMICAL RESISTANCE

Chemical Agent	Exposure Time	Result
Reference fuel	1 hour	edge softening
#1 diesel fuel	1 hour	edge softening
10% Hydrochloric acid	10 minutes	no effect
10% Ammonium Hydroxide	10 minutes	no effect
Mild acids	10 minutes	no effect
Alkalis	10 minutes	no effect
Salts	10 minutes	no effect
Water	10 minutes	no effect

## **FLAMMABILITY**

Series 220-10 (white) has been tested for flame spread per ASTM E84-95, "Surface Burning Characteristics of Building Materials," and meets the requirements of National Fire Protection Association Class A (1) (most fire resistant class) as defined in NFPA 101, "Life Safety Code."

## RELATED LITERATURE

Refer to Product Bulletins of relevant foils and materials for product-specific handling, production, and finishing information.

## **CONTACT INFORMATION**

For help with questions concerning Gerber products, please call your distributor or Gerber Customer Service at 1-800-222-7446 or (860) 644-1551. Visit us on the Internet at www.gspinc.com to learn more about our many other foils, materials and equipment.

When sold by Gerber, use only the corresponding Gerber Product Bulletin to determine product details, including but not limited to appropriate uses, warranty and processing.

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## **GERBER HP SERIES 220 COLOR CHART**

## **Solid Colors**

220-10 White	220-11 Pearl Gray	220-12 Black
220-13 Tomato Red	220-14 Bright Orange	220-15 Bright Yellow
220-17 Vivid Blue	220-19 Deep Mahogany Brown	220-20 Matte White
220-21 Palm Oyster	220-22 Matte Black	220-24 Terra Cotta
220-25 Sunflower	220-27 Navy	220-29 Russet Brown
220-31 Medium Gray	220-37 Sapphire Blue	220-38 Royal Purple
220-39 Tan	220-41 Dark Gray	220-46 Kelly Green
220-47 Intense Blue	220-48 Purple	220-49 Beige
220-53 Cardinal Red	220-54 Light Orange	220-56 Dark Green
220-57 Olympic Blue	220-58 Burgundy	220-63 Geranium
220-64 Apricot	220-66 Forest Green	220-68 Dark Burgundy
220-69 Duranodic	220-77 Peacock Blue	220-86 Robin Egg Blue
220-87 Royal Blue	220-88 Violet	220-89 Sandstone
220-90 Antique White	220-94 Coral	220-96 Teal
220-98 Dark Violet	220-99 Fawn	220 100 Oyster
220-135 Primrose Yellow	220-138 Pale Lavender	220-139 Saddle Brown
220-193 Mauve	220-196 Apple Green	220-197 Light Navy
220-223 Matte Red	220-253 Warm Red	220 263 Perfect Match Red
220-307 Dark Aqua	220-347 Powder Blue	220-357 Bermuda Blue
220-367 Celestial Blue	220-377 Blue Bird	220-387 Periwinkle
220-397 Dark Blue	220-407 Matte Blue	220-417 Sky Blue
220-101 Nimbus Gray	220-103 Magenta	220-104 Dark Coral
220-105 Imitation Gold	220-130 Eggshell	220-133 Raspberry
-		-



220-134 Intense Orange	220-145 Chrome Yellow	220-151 Traffic Gray
220-163 Dark Magenta	220-173 Salmon Pink	220-176 Aqua
220-177 Shadow Blue	220-186 Bright Green	220-187 Wedgewood Blue
220-266 Cactus Green	220-273 Process Magenta	220-276 Bottle Green
220-283 Cranberry	220-286 Jade Green	220-293 Atomic Red
220-296 Eucalyptus		

## **Metallic Colors**

220-120 Silver	220-131 Gold	220-201 Slate
220-206 Pine Green	220-208 Burgundy	220-209 Dark Brown
220-211 Charcoal	220-216 Sage Green	220-217 Dark Blue
220-218 Light Rose	220-227 Bright Blue	220-229 Copper
220-231 Light Gold	220-237 Silver Blue	

## Clear 220-114 Clear Enamel Receptive

PANTONE® Simulated Color Reference Table			
PANTONE	Gerber HP Series 220	GSP	
Simulated Color	Color Name	Pigment Code	
Process Black C	BLACK	220-12	
Orange 021 C	BRIGHT ORANGE	220-14	
Cool Gray 2C	PEARL GREY	220-11	
Black C	MATTE BLACK	220-22	
109C	BRIGHT YELLOW	220-15	
175C	RUSSET BROWN	220-29	
179C	WARM RED	220-253	
186C	PERFECT MATCH RED	220-263	
214C	PROCESS MAGENTA	220-273	



220C	RASPBERRY	220-133
289C	LIGHT NAVY	220-197
PANTONE	Gerber HP Series 220	GSP
Simulated Color	Color Name	Pigment Code
301C	INTENSE BLUE	220-47
322C	TEAL	220-96
323C	BERMUDA BLUE	220-357
348C	BRIGHT GREEN	220-186
349C	CACTUS GREEN	220-266
422C	MEDIUM GREY	220-31
434C	PALM OYSTER	220-21
872C	GOLD - Metallic	220-131
877C	SILVER - Metallic	220-120
1235C	SUNFLOWER	220-25
1795C	TOMATO RED	220-13
2727C	PERIWINKLE	220-387
2756C	ROYAL BLUE	220-87
2767C	NAVY	220-27
2935C	MATTE BLUE	220-407
2975C	POWDER BLUE	220-347
3302C	FOREST GREEN	220-66
4625C	DEEP MAHOGANY BROWN	220-19
7461C	OLYMPIC BLUE	220-57
7510C	IMITATION GOLD	220-105

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 Category: EDGE READY™
 FastFact #: 5574
 Supplied by: Aftermarkets
 Last Modified: 04/04/17

