

# Avery® SF 100-120-S Glow in the Dark

## Permanent Kraft

(formerly: A0820-S Glow in the Dark)

Revision: 1                      Dated: 10/23/2009

### Uses:

Avery Graphics™ Glow-in-the-Dark Film is a specialty photoluminescent non-coated rigid polyester film that can be used for exit and directional signs, identification of fire alarms, fire extinguishers and evacuation routes. This product performs in accordance with ASTM 2030-06: Recommended Uses of Photoluminescent Safety Markings., meets ASTM® E2072-04 Standard Specification for Photoluminescent (Phosphorescent) Safety Markings



**Face:** 8 mil (202 microns) specialty polyester



**Adhesive:** Clear Permanent



**Liner:** 78# bleached Kraft



**Durability:** Up to 5years  
INDOOR USE ONLY

**Application Surfaces:**

Flat

### Features:

- High gloss finish
- Dimensionally stable liner for easy converting
- Excellent dimensional stability
- Non-toxic, non-radioactive
- Uses zero electricity

### Conversion:

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Thermal Die-Cutting               | <input type="checkbox"/> Thermal Transfer           | <input type="checkbox"/> Solvent based inkjet    |
| <input checked="" type="checkbox"/> Flat Bed Sign-Cut      | <input checked="" type="checkbox"/> Screen Printing | <input type="checkbox"/> Mild/Eco Solvent inkjet |
| <input checked="" type="checkbox"/> Drum Roller Sign-Cut   | <input type="checkbox"/> Cold Overlaminating        | <input checked="" type="checkbox"/> UV inkjet    |
| <input checked="" type="checkbox"/> Steel Rule Die-Cutting | <input type="checkbox"/> Water based inkjet         |  |

*NOTE: When screen printing, contact your ink manufacturer for ink recommendations.  
Always test UV inkjet compatibility before printing.*

### Common Applications:

Safety Signs	Illuminate Pathways
Emergency Exit Markings	Location Signs
Evacuation Signs	

## Product Data Sheet

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## Physical Characteristics:

Property	Value
Caliper, face	8 mil (202 µm)
Caliper, adhesive	1.0mil (25 µm)
Dimensional stability	<0.15"(0.4mm)
Tensile at Yield	na
Elongation	na
Gloss at 60°	120
Adhesion: 24 hr.	5.5 lbs/in (963 N/m)
1 week	6.25 lbs/in (1094 N/m)
Flammability	Self Extinguishing
Shelf-Life	1 year
Durability	Vertical Exposure Unprinted – 5 years Indoor Only
Min. Application Temperature	50° F (10° C)
Service Temperature	-50° - 180°F (-45° - 82° C) (Reasonable range of temperatures which would be expected under normal environmental conditions).
Chemical resistance	Resistant to most mild acids, alkalis, and salt solutions.

### Important:

Information on physical and chemical characteristics are based on tests believed to be reliable. The values are intended only as a source of information. This information is given without guaranty and do not constitute a warranty. The purchaser should independently determine, prior to use, the suitability of any material for their specific purpose. (Data represents average values where applicable, and is not intended for specification purposes)

### Warranty:

All statements, technical information and recommendations about Avery Dennison products are based upon tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its purposes. Avery Dennison products are warranted to be free from defects in material and workmanship for either one year (or the period stated on the specific product information literature in effect at time of delivery, if longer) from date of shipment if said product is properly stored and applied. It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective product without charge at Avery Dennison's plant or at the location of product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the product.

Avery Dennison's liability for defective products shall not exceed the purchase price paid therefore by Purchaser and in no event shall Avery Dennison be responsible for any incidental or consequential damages whether foreseeable or not, caused by defects in such product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence.

NO EXPRESS WARRANTIES AND NO IMPLIED WARRANTIES, WHETHER OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE, OR OTHERWISE (EXCEPT AS TO TITLE), OTHER THAN THOSE EXPRESSLY SET FORTH ABOVE WHICH ARE MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, SHALL APPLY TO PRODUCTS SOLD BY AVERY DENNISON. AVERY DENNISON SPECIFICALLY DISCLAIMS AND EXCLUDES ALL OTHER SUCH WARRANTIES. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

## Product Data Sheet

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Graphics & Reflective Products Division  
250 Chester Street  
Painesville, OH 44077



AnswerLine: 800-231-4654  
www.averygraphics.com

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## Dimensional stability:

Is measured on a 6" x 6" (150 x 150 mm) aluminum panel to which a specimen has been applied; 72 hours after application the panel is scored in a cross pattern, exposed for 48 hours to 150°F (65°C), after which the shrinkage is measured.

## Adhesion:

(FTM-1, FINAT) is measured by peeling a specimen at a 180° angle from a stainless steel panel, 24 hours after the specimen has been applied under standardized conditions. Initial adhesion is measured 15 minutes after application of the specimen.

## Flammability:

A specimen applied to aluminum is subjected to the flame of a gas burner for 15 seconds. The film should stop burning within 15 seconds after removal from the flame.

## Temperature range:

A specimen applied to stainless steel is exposed at high and low temperatures and brought back to room temperature. 1 hour after exposure the specimen is examined for any deterioration. Note: Prolonged exposure to high and low temperatures in the presence of chemicals such as solvents, acids, dyes, etc. may eventually cause deterioration.

## Chemical Resistance:

All chemical tests are conducted with test panels to which a specimen has been applied.

REAGENT	7 DAY IMMERSION	DIP TEST	RUB TEST
30% Sulfuric Acid	NE	NE	NE
10% Sulfuric Acid	NE	NE	NE
30% HCL	NE	NE	NE
10%HCL	NE	NE	NE
50% NaOH	F	NE	NE
10% NaOH	F	NE	NE
MEK	F	F	F
Acetone	F	F	F
Methanol	F	F	F
Isopropyl Alcohol	F	F	F
ASTM #3 Oil	NE	NE	NE
SAE 20 Oil	NE	NE	NE
Toluene	F	NE	F
Mineral Spirits	NE	NE	NE
Glacial Acetic Acid	F	F	F
5% Acetic Acid	NE	NE	NE
Diesel Fuel	NE	NE	NE
Heptane	NE	NE	NE
10% NaCL	NE	NE	NE
Turpentine	NE	NE	NE
Kerosene	F	NE	NE
DI Water	NE	NE	NE
Gasoline	F	NE	F

NE = No Effect

F = Failed (affected sample)

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7 Day Immersion: Immersed in reagent for 7 days. Dip Test: Five 10 minute dips in reagent with 30 minute recovery. Rub Test: Rubbed sample for 1 minute with swab soaked in reagent

**Illuminescent  
Characteristics:**

Charge time of 5 minutes @ 1000 Lux will charge the sign for +10 hours of glow time.  
Consistent glow life and unlimited rechargability throughout service life.

Illumination: 21.6 Lux (2 foot candles) for 2 hours with a 4100K cool white flourescent lamp

Luminence time (after illumination):

10 minutes > 25 mcd/square meter

60 minutes > 5 mcd/square meter

90 minutes > 3 mcd/square meter

**Abrasion Resistance:**

CS-17 wheels, 1000g weights

Withstands up to 9000 cycles

Tested U.S Federal test Method Std. No. 191A, Method 5306

**Relevant Standards:**

Meets or exceeds the following standards. ASTM E-2072-00 / ASTM E-2073-00, ASTM E-162, ASTM E-648, ASTM E-662, IMO Resolution A.752(18), ISO/CD 15370, Marine Safety Committee MSC.27(61), DIN 67 510 (Parts 1 - 4), and PSPA Standard 002 Part 2.

Meets OSHA 1910.37, Lloyd's Register SAS F050294.p

*Revisions are italicized*

**Trademarks:**

ANSI: American National Standards Institute (U.S.A.)

IMO: International Maritime Association

ASTM: American Society for Testing and Materials (U.S.A.)

OSHA: Occupational Safety & Health Administration

PSPA: Photoluminescent Safety Products Association

Fed. Spec.: United States Federal Specification (U.S.A.)

DIN: Deutsches Institut für Normung

PSTC: Pressure Sensitive Tape Council (U.S.A.)

Avery Dennison is a registered trademark of Avery Dennison Corp.

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