



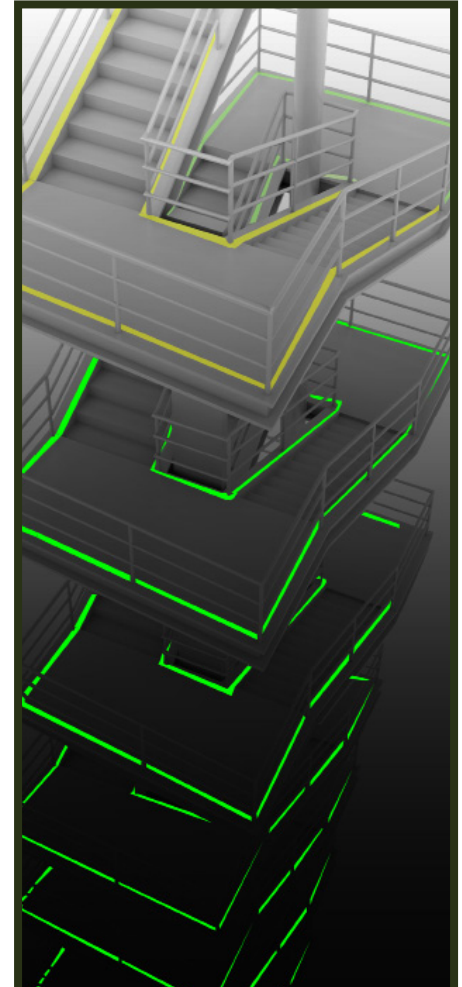
377 Glow-in-the-Dark (GITD) Safety Marking Paint is used to identify exit routes and emergency equipment when light sources fail. The paint requires mixing two components: Part A - Clear Base, and Part B - Pigment. Together they form a waterbased, high-intensity photoluminescent coating that can be brushed, rolled or sprayed.

A minimum of two coats must be applied over a white surface to meet ASTM-2072-14 or NYC-26 minimum luminance requirements. (A minimum total dry-film-thickness of .005" of luminescent paint.)

An ultraviolet light source is required to keep the coating charged - sunlight, fluorescent lights, incandescent lamps, black lights or flashlights. The paint appears one color when lit and a different "luminescent" color in darkness.

A coat of 379V1 Clear Protective Sealer is recommended in traffic areas, where cleanability is important, and for exterior applications.

WHAT WILL YOU SEE IF THE LIGHTS GO OUT?



377Y1 SAFETY YELLOW GLOWS FLUORESCENT GREEN IN DARKNESS

BENEFITS	
• Meets ASTM E2072 and NYC-26	• Water based, low VOC - < 100 g/l
• Low odor, non-flammable	• Fast dry - quick return to service
• More economical than tape	• Apply by brush, roller or sprayer
• Interior and exterior*	• Multiple colors

**exterior- 377G1 Green and 377B1 Blue are suitable for exterior use. 377Y1 safety yellow pigment will fade quickly to an off-white color if used outdoors but this will not affect its ability to glow-in-the dark.*

LUMINESCENCE RATING

Standard	Time, Minutes	Lu - Luminance (mcd/m ²) @ .005" Dry-Film-Thickness				
		Req'd. Lu	Prod. #	Color-When Lit	Color- When Dark	Test result
ASTM E-2072 DIN 67510	10, 90	30, 5 (mcd/m ²)	377Y1	Safety Yellow	Fluor. Green	49, 5
			377B1	Off White **	Fluor. Blue	57, 5
			377G1	Off White **	Fluor. Green	67, 5
NYC-26	10, 60, 90	30, 7, 5 (mcd/m ²)	377Y1	Safety Yellow	Fluor. Green	49, 14, 6
			377B1	Off White **	Fluor. Blue	57, 8, 6
			377G1	Off White **	Fluor. Green	67, 9, 6

The intensity and duration of the "glow" depends on:

1. The level of exposure to ultra-violet light
2. The dry-film-thickness of the glow-in-the-dark (GITD) coating.

COMMON QUESTIONS:

Why do photoluminescent paints glow in the dark?

These paints contain pigments that absorb energy from visible light that is re-emitted slowly (glow-in-the-dark) when the light source is absent.

Why does the cost of glow-in-the-dark (GITD) paints vary so much?

There are two types of pigments used: zinc sulfide and alkaline earth aluminate. Zinc types are much less expensive but glow for very short periods of time and are used for hobbies and crafts. Aluminate types glow much longer and they are used to make paints and plastics suitable for marking exit routes and emergency equipment.

Why apply glow-in-the-dark paints at floor level?

In the case of fire, smoke rises to the ceiling and can block emergency lighting and exit signs over doorways. Pathway marking at floor level remains visible when other light source may be blocked.

What test methods apply?

ASTM E2073-10 is the procedure used to determine the luminance AND ASTM E2072-14 covers the minimum requirements. Paint can be tested in a laboratory or on-site. E2072-14 requires that the luminance shall not be less than 30 mcd/m² after 10 minutes and 5 mcd/m² after 90 minutes. The New York City code includes a measurement at 60 minutes that must be greater than 7.

CARBIT

Safety Glow Marking Paint water base photoluminescent paint

SYSTEM SPECIFICATION

Product	Description	No. of Coats	Min. DFT*	Sq. Ft. / Gal.**	Dry-time to Recoat	Dry-Through	Dry Hard ***
376W1	White Undercoat	1	1.5	300	1 hr.	1 hr.	24 hr.
377 2K	Glow-in-the-Dark	2	5	250	2-3 hr.	4-8 hrs.	7 days
379V1	Low Gloss Clear Sealer	1	1.5	300	1 hr.	1 hr.	24 hr.

* DFT = dry film thickness measured in mils (1 mil = .001" inch)

** Maximum spread rate to achieve minimum film thickness to required to meet luminescence test standards. Actual yield may be less due to loss during application caused by material held in roller or lost in overspray.

*** Dry times (@ 72° F and 50% RH @ 1 mil dry film thickness. Air movement is very important to help waterbased coatings dry.

MIXING

The container of 377V1 is short-filled to allow room for the addition of the correct amount of pigment. Hand stir 377V1, and then add the proper amount of pigment. Continue hand stirring until the pigment is completely mixed and the color is uniform. **Mixed product should be used within 24 hours after mixing, or before the product becomes solid.**

Mixing ratios for less than full containers		
	By Volume	By Weight
Part A - Base	89 parts	77 parts
Part B - Pigment	11 parts	23 parts

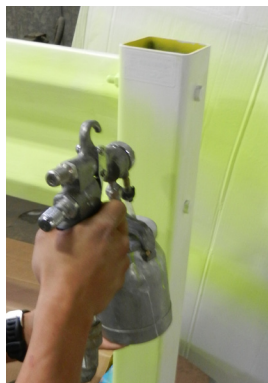
SAFETY

Low VOC and Non-flammable. Consult MSDS for specification safety precautions and recommendations.

APPLICATION TECHNIQUES

Glow-in-the-dark (GITD) coatings are often applied as stripes or as borders around doors, stairs, controls, etc. Design the job to minimize masking by painting between natural breaks or corners on the substrate. Where masking is necessary, use low adhesion, safe release tape. Remove masking tape before each coat dries to prevent the masking tape from lifting the paint. Cut along the edge of the masking tape if the paint dries before the tape is removed.

The primer (376W1) and clear sealer (379V1) can be brushed, rolled or sprayed. Fewer coats of the **Glow-in-the-dark (GITD)** may be required when sprayed and spraying is always recommended when coating larger areas and when a very smooth finish is required.



Surface and air temperature > 45° F and < 95° F at least 5° F. Relative humidity < 85% with air movement. Air circulation is necessary for proper dry and cure.

Brush - Use a high quality, synthetic bristle brush. Always spread paint back into the previous wet paint. Do not go back and try to touch up spots once coating begins to set up.

Roller - 1/4" nap, lint-free cover. Always spread paint back into the previous wet paint. Do not go back and try to touch up spots once coating begins to set up.

Airless spray: 900 - 1500 psi, .013" - .015" tip.

Capspray HVLP Air Turbine - #3 Set Up, Minimum Fluid Flow, Full Air

Conventional or HVLP, 1.4 mm fluid nozzle.

LIMITATIONS

Technical recommendations, suggestions, or statements are intended for the assistance of our customers. They are based upon our experience and judgement but must not be regarded as a legal warranty or as involving any liability on our part.

Actual photographs under lit and dark conditions



377B1 and 377B1 Off Whites are slightly green. Very similar to RAL 120 90 10 and RAL 130 90 10 respectively.

MATERIAL ESTIMATE

MATERIAL REQUIREMENT FOR 673 LIN. FT. OF 2" LINE				Photoluminescent Marking Paint
Item #	Description	(Fl. Oz.)	Gal.	2" wide stripe
376W1	White Base Coat	64	1/2	1 gallon, applied in two coats at .005" DFT = 673 lin. ft. of 2" stripe [112 sf/gal. @ .005" with 70% transfer efficiency.]
Part B	Pigment	14	1	
Part A	Resin	114		
379V1	Clear Sealer	64	1/2	

Sold only as a kit						
		Quart Kit		Gallon		
Product	376W1	377V1-Qt.	377Y1-Qt.	377V1-1	377Y1-1	379V1
Description	White Base Coat	Part A - Base	Part B - Pigment	Part A - Base	Part B - Pigment	Clear Sealer
Color	White	Safety Yellow / Fluorescent Green Glow				Satin Clear
Type	Acrylic	Strontium aluminate europium and Acrylic				Acrylic Urethane
Dry-to-touch *	30 minutes	60 minutes				15 minutes
Dry-to-recoat	1 hour	2-3 hours				1 hour
Wtg. / Gal.	10.75	9.90				8.75
Solvent	Water	Water				Water
Vol. Solids %	42%	50%				36%
Wt. Solids %	54%	60%				39%
VOC	<100 g/L	Mixed kit < 100 g/L				<100 g/L
60° Gloss	<8	15				10-15
Flash Point	> 212° F	> 212° F				> 212° F
Package Sizes	Qts. and Gallon	Qts. and Gallon Kits				Qts. and Gallon