

PERMALIGHT® Safety Foam Guards + 2D and 3D Corner Protectors

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1. What material makes up this cushion?
Recyclable Open-Cell Polyurethane Foam

2. How do Foam Guards get installed?
Most Types: self-adhesive strips. Follow our Installation Instructions (separate Page). Clean surface that item shall be applied to. Remove red-colored protective silicone strip and press-apply bumper guard to clean, dry, dust-free surface; preferably at 40 F or above (4 C or higher).

Type B and B+: non-adhesive. Clean I-beam surface that B-shape shall be applied to. Press B-groove onto I-beam. If stronger bond is desired, apply special adhesive (available for purchase as Item-No.: 83-0789) for improved attachment. Then firmly press-apply bumper guard type B and B+ to clean, dry, dust-free surface.

Magnetic: Easy to apply, remove and reapply to magnetic surfaces as many times as you need to!

Several Types also: come with Steel Support + 6 Screws/ 6 Anchors. Position Foam Guard in place, mark screw holes with pencil. Pre-drill holes, insert anchor, then screw-mount Steel-supported Foam Guard to surface.

3. Is mounting hardware included? **Yes: screws and anchors for those Foam Guards with Steel Support. NO mounting hardware needed for Adhesive-supported Types, squeeze-on Type B or magnetic.**

4. What can this material be mounted to?
Types A, A+, E, H, H+ and H+Steel: any corner with 90° angle, typically wall corners, machinery, equipment, overhead protrusions; objects like ladders, mail/delivery carts, racks, shelves, etc.
Types B, B+ and G: ideal on I-Beams / H-Beams and similar uses where the groove fits the projection just right
Types C, C+, D, F, S1 + S1Steel: any flat surface, e.g., on machinery, equipment, walls, shelves, forklifts, trucks, overhead protrusions; in parking garages to avoid Vehicle dings and scrapes. In loading dock areas.
Type R1 + R2: on pipes and other round obstacles; under parking lot gate arms.
2D + 3D Corners: as end-caps for continuous bumper types A, B, C; individually on pointed furniture corners (bookcases, metal filing cabinets, pointy projections, etc).

5. Can this material be used indoors, outdoors or both?
✓ **Black-Yellow, All-Black, All-White indoor and outdoor use.**
✓ **Reflective indoor and outdoor use = ideal in parking environments; areas with car headlights.**
→ !!! Photoluminescent and Fluorescent/Photoluminescent Types ONLY FOR INDOOR use!!!

6. Is this material weather resistant?
Black-Yellow, All-Black, All-White and Reflective typically yes.
!!! Photoluminescent and Fluorescent/Photoluminescent Types NO!!!

7. Is this material flexible or rigid?
Bendable, yet neither flexible nor rigid.

8. What is the temperature range of this material?
From -31 °F to 176° Fahrenheit [from -35 °C to 80 °Celsius] in normal dry conditions.

9. What is the temperature range of the adhesive on the foam guards?
From -40 °F to 212° Fahrenheit [from -40 °C to 100° Celsius] in normal dry conditions.
If soapy water or frost penetrate the space between adhesive and object surface, such unusually harsh conditions may result in loosening.

10. What type of adhesive is on the adhesive-backed strips?
Light- and aging resistant, modified, durable Acrylic Adhesive.
Adhesive Strength: 25 Newton per Inch.
Type G only: double-sided non-woven adhesive, temperature resistant, modified acrylate adhesive.
Short term: up to 140° F. Long term: up to 104° F. Adhesive Strength: 37.5 Newton per Inch.
11. Flammability Test:
DIN 4102 (1998) Reaction to fire tests - Ignitability of building products subjected to direct impingement of flame.) - Part 1: B2 Per DIN 4102 Test Standard, they have a **B2** rating which means they are termed "normally flammable" as the material burns at a "normal" speed.
EN ISO 9239-1 Determination of the burning behaviour using a radiant heat source: EN Class: Dfl
 Per EN ISO 9293-1 (Radiant Panel Test), the polyurethane foam guards have a **Dfl** rating which means they are rated as "normally combustible".
12. What is the durometer of this material and the shore scale it was measured on?
Approximately 55 measured per Shore A
13. What is the purpose/benefit of this material (i.e. withstand impact, guard, align...etc)?
- **make protrusions & obstacles along the way brightly visible**
 - **avoid the risk of injury as a person hits the soft, cushioned foam guard instead of a sharp, pointed corner or hard metal object**
 - **protect building features by reducing the damage to corners (imagine carts constantly cutting a corner)**
 - **save walls from impact (e.g., all-white along wall behind chairs or where hospital beds bump in)**
 - **protect equipment & machinery**
 - **protect vehicles in parking environments: avoid dings and scrapes on car paint**
 - **alert people to overhead obstacles, like prevent head injuries from bumping into pipes**
14. What is the finish of this material? (textured/ pebbled, smooth, shiny...etc)
Semi-matte, leather-like surface finish on black-yellow, all-black, all-white foam guards.
Semi-matte, smooth surface finish for the photoluminescent foam guards.
15. What are the reflective features? **Retro-Reflective effect!**
The Reflective Foam Guards use a High-Intensity Prismatic Reflective Sheeting with eminent retro-reflective property, suited for regulatory signage, warning signs or arrow road signs. Red contrasting color is surface-printed and protected with a UV-resistant clear surface lacquer for outdoor suitability.

Photometric Performance: Typical coefficient of retro-reflective values of Prismatic High Intensity Reflective Sheeting when measured in accordance with CIE Publication 54.2 using CIE standard illuminant A shown below:

		Initial Value		
		Designated Angle	I.A.	White
Reflective Intensity Value	0.1°		+5°	1074
			+20°	954
			+30°	555
			+40°	340
	0.2°		+5°	552
			+20°	633
			+30°	458
			+40°	312
	0.33°		+5°	345
			+20°	397
			+30°	323
			+40°	258

16. It the foam guard material marking or non-marking?
Foam Guard itself is non-marking. The Yellow/Black color is accomplished through reverse printing, therefore no outside-surface color application. !!! Do NOT use thinners or solvents on the surface of Photoluminescent and Photoluminescent-Fluorescent Foam Guards!!!!

17. Is this material staining or non-staining?
Foam Guard itself is non-staining. If pulled away following installation, adhesive remnants may be present on installation surface which should be removed using thinners or solvents.
18. Thickness and Weight of this material.
See individual cross-section graphics for the many Types available and various weights listed for Details
19. Length of the Foam Guards. **39-3/8" length (1 meter = 100 cm) on the shelf, ready to supply right away**
Types A, B, C, E, F, R1 also in 16-foot long rolls (= 5.47 yard coiled for ease of shipping) on the shelf.
→D, G, H and other Types: 16 foot rolls available upon request
→A few types may also be available in 164-foot = 54.7 yard extra-long rolls
→please contact us to inquire if your desired Type is available in longer length than 39-3/8 inch
20. Electrostatic Charging
The polyurethane foam guards were tested for their tendency for electrostatic charge. The surface resistance of the material was NOT tested, as the polyurethane foam guards are not used as storage surface and as the resistance value of $>10^{11}$ Ohm is above the normative limit.
Following rubbing, the material cannot get electrostatically charged and can therefore be used in ESD protective areas. This does NOT apply to safety bumper guards with Steel Support as Steel is electrically conducting.