



Fusion-Guard-18 Pad-Style Snow Guard Submittal Document Set

ROOF TYPES

- New / Existing Cedar Shingle
- New / Existing Composition (Asphalt) Shingle
- New / Existing Slate
- New / Existing Synthetic Shake or Slate
- New / Existing Tile (Flat, Mission, Round, "S" Tile, Spanish)

AVAILABLE MATERIALS

- Cold Rolled Steel
- Copper

AVAILABLE FINISHES

- Pre-Powder Coated - Dark Bronze or Graphite Grey (CRS)
- Mill-finish (CU or CRS)

FEATURES/ADVANTAGES

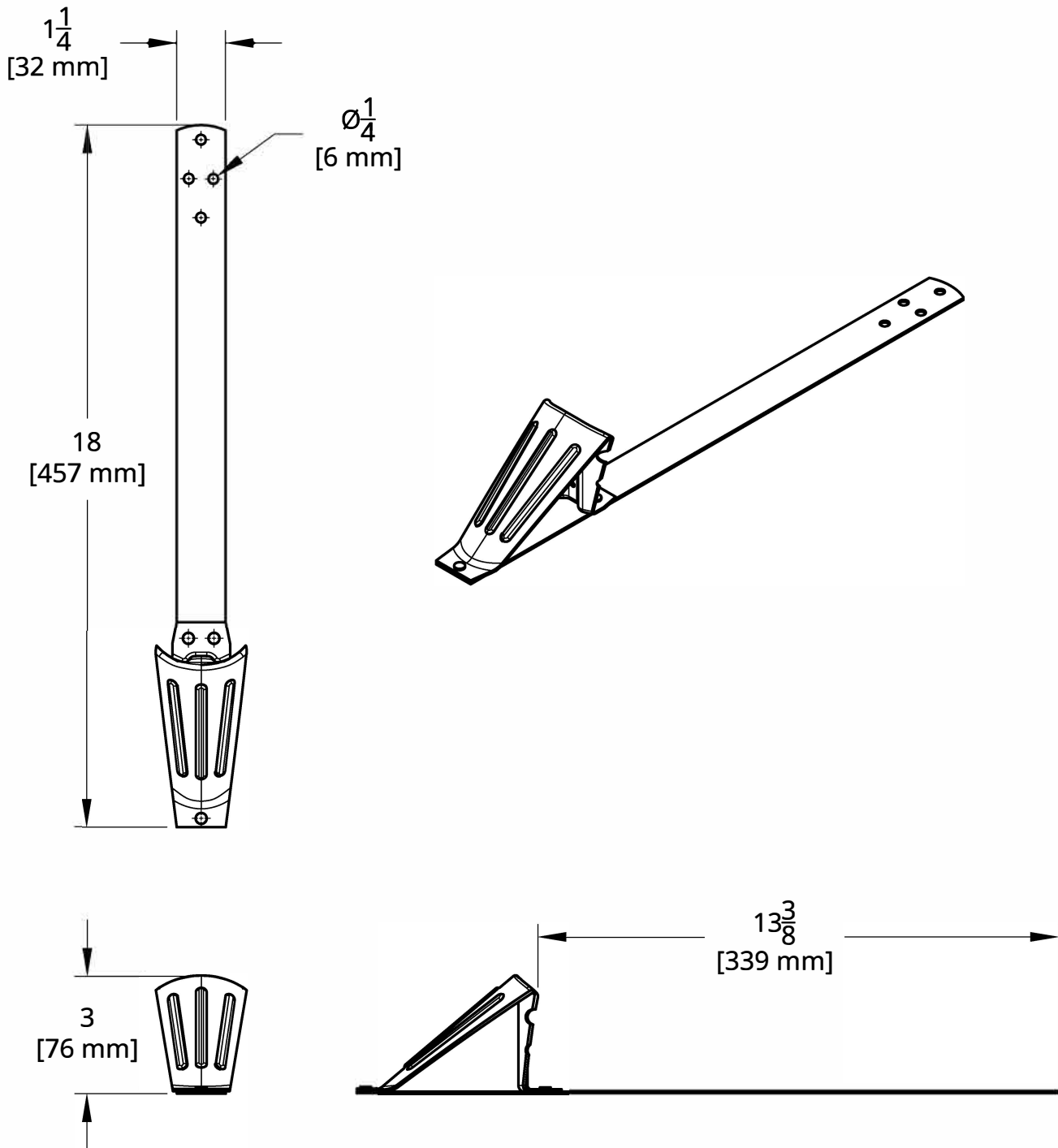
- Strap length is designed specifically for traditional, longer natural slate and clay/concrete tile courses. The extended 18-inch strap extends past the long-exposure gap to anchor directly into the roof deck above the tile line.
- Functions as a versatile assembly of individual metal guards that allows installers to easily add optional 3/8-inch rods or pipes during or after the initial build. This seamlessly upgrades a standard pad layout to a high-load hybrid barrier system for severe snow-load zones.
- Engineered with prominent structural stiffening ribs stamped directly into the front face of the pad. These ribs deliver exceptional rigidity and torque resistance under heavy drift pressures.
- Engineered as individual, low-profile metal guards that blend seamlessly into premium synthetic and traditional asphalt roof lines. An ultra-clean, architectural look for high-end residential and commercial clients who prioritize design integrity.
- Structurally retains and manages snowpack movement to insulate against costly property damage at the lower roof level (safeguarding gutters, valleys, cricket rafters, plumbing vents, and protrusions) and at the ground level below (protecting vehicles, walkways, landscaping, and pedestrians).



Fusion Guard 18" in Dark Bronze
FUSION-GUARD-18-STB



CUTSHEET - FUSION-GUARD-18



1. Installation to be completed in accordance with manufacturer's written specifications and installation instructions.
2. See spec sheet or contact manufacturer for detailed material, finishes, and configuration options.
3. Contact manufacturer for detailed layout.
4. Do not scale drawings.
5. Subject to change without notice.
6. For patent information, visit our Patent Page.

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SCALE	DATE	REV.
1:4	03/25/2026	



FUSION-GUARD-18 Specification Sheet Snow Guards

PART 1 – GENERAL

1.1 SUMMARY

A. WORK INCLUDES

1. FUSION-GUARD-18 snow guard that attaches directly to roof deck.
2. Coordinate with roof installation to assure proper placement of snow guards.
3. Provide appropriate snow guard and fasteners for roof system.

B. RELATED SECTIONS

- | | |
|---|----------------------------|
| 1. Section 076000: Flashing and Sheet Metal | MasterFormat 2016 07 60 00 |
| 2. Section 073100: Shingles and Shakes | MasterFormat 2016 07 31 00 |
| 3. Section 077200: Roofing Accessories | MasterFormat 2016 07 72 00 |
| 4. Section 077253: Snow Guards | MasterFormat 2016 07 72 53 |

1.2 SYSTEM DESCRIPTION

A. COMPONENTS

Bracket: A snow guard assembly that consists of individual metal snow guards.

1. FUSION-GUARD-18

Bracket Accessories (for use only with 3/8" rod/pipe): Rod/pipe, attachment rod bracket, and rivets that allows installer to use as a hybrid pad/rod-style snow guard system.

1. RD77 (3/8" rod) or PP77 (pipe)
2. FUSION-GUARD-ROD BRK Rod Bracket
3. R-POP SS 3.0X6.0 Rivet

B. ROD/PIPE ACCESSORIES:

1. RD87, external couplings
2. RD65, end collars
3. RD95, ice flags (optional)

C. DESIGN REQUIREMENTS:

1. Spacing to be recommended by the manufacturer or building engineer.
2. Install 2 fasteners per snow guard.
3. It is important to design new structures or assess existing structures to make sure they can withstand retained snow loads.
4. When used with 3/8" rod/pipe, a break in the assembly is required every 48-feet and rod/pipe have a 6-inch maximum allowable overhang from end bracket.

1.3 SUBMITTAL

- A. Submit manufacturer's specifications, standard detail drawings, installation instructions, and recommended layout.

1.4 QUALITY ASSURANCE

- A. Installer to be experienced in installation of specified roofing material and snow guards for not less than 5 years in the area of the project.

1.5 DELIVERY / STORAGE / HANDLING

- A. Inspect material upon delivery and order replacements for any missing or defective items. Keep material dry, covered and off the ground until installed.



FUSION-GUARD-18 Specification Sheet Snow Guards

PART 2 – PRODUCTS

2.1 MANUFACTURER

A. Alpine SnowGuards®, a Division of Vermont Slate & Copper Services, Inc.
289 Harrel St., Morrisville, VT 05661 | 888-766-4273 | www.alpinesnowguards.com

2.2 MATERIALS

A. FUSION-GUARD-18 (choose one)

1. DC01 Galvanized Cold Rolled Steel (CRS) – 0.059" thickness
2. Copper – .039" thickness snow guard head, .064" thickness strap

2.3 ACCESSORY MATERIALS

A. FUSION-GUARD-ROD BRK – 304 Stainless Steel

B. R-POP SS 3.0X6.0 – 304 Stainless Steel

C. Rod (RD77) or Pipe (PP77) (choose one)

1. 304 Stainless Steel, 3/8" diameter rod
2. 6061 Aluminum, 3/8" diameter pipe

D. External Couplings (RD87). External and exposed coupling, which can also serve as an expansion mechanism 3" long

1. 304 Stainless Steel

E. End Collars (RD65) (choose one):

1. 304 Stainless Steel
2. 6000 Series Aluminum (for powder-coated systems only)

F. Ice Flags (RD95) [3" wide x length (as needed)]:

1. 304 Stainless Steel

2.4 FINISH (choose one):

A. DC01 Galvanized Cold Rolled Steel (CRS)

1. Powder Coated Dark Bronze
2. Powder Coated Graphite Grey
3. Mill-finish

B. Copper

1. Mill-finish

PART 3 – EXECUTION

3.1 EXAMINATION

A. Substrate

1. Inspect structure on which snow guard system is to be installed and verify it will withstand any additional loading that it may incur. Notify general contractor of any deficiencies before installing Alpine SnowGuards' products.
2. Verify roofing material has been installed correctly prior to installing snow guards.

3.2 INSTALLATION

- ##### **A. Comply with architectural drawings and snow guard manufacturer's recommendations for location of system. Comply with manufacturer's written installation instructions for installation and layout.**

Document Version 05.01.2026
07 72 53 Snow Guards

FUSION-GUARD-18 Snow Guard

ROOF TYPES

- New Cedar Shingle
- New Composition (Asphalt) Shingle
- New Slate
- New Synthetic Shake or Slate
- New Tile

INSTALLATION

1. Install the first 2-3 rows of roofing material (3 rows for slate, tile, or shingle; 2 rows for synthetic shingles), and place the strap of the snow guard on the roof deck (*fig. 1*).

Note: When installing on 3-tab shingles, lay Fusion-Guard on top of the shingle, centering on the keyway between shingles.

2. Measure the butt-end thickness of the shingle. Place the guard low enough to leave a gap between the shingle and the snow guard head that is at least **3x the thickness** or **5/8" minimum**, whichever is greater. (*fig. 2*)
3. Use 2 fasteners in a vertical pattern to attach to rafters. Use two fasteners in a horizontal pattern for installation into sheathing.

FIG.1

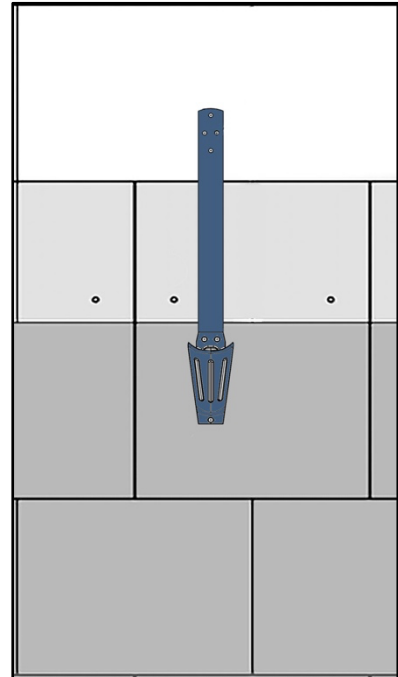
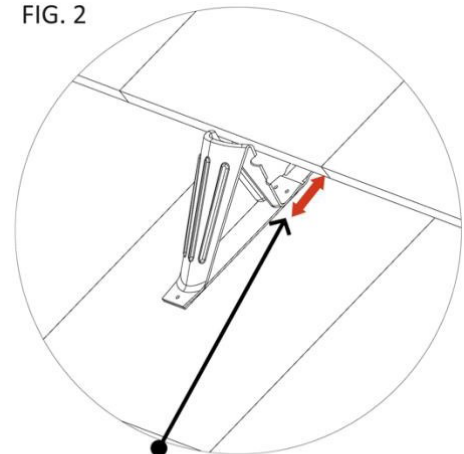


FIG. 2



PROPER SNOW GUARD PLACEMENT

Ex. 0.5" shingle thickness X 3 = 1.5" spacing
Back of head is 1.5" from front edge of shingle

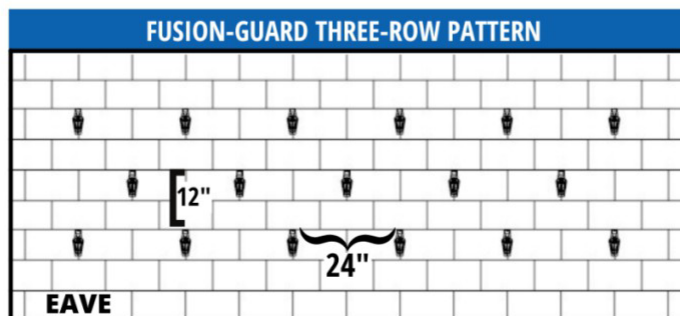
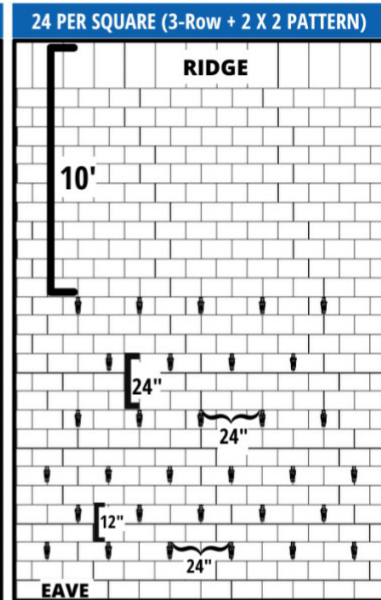
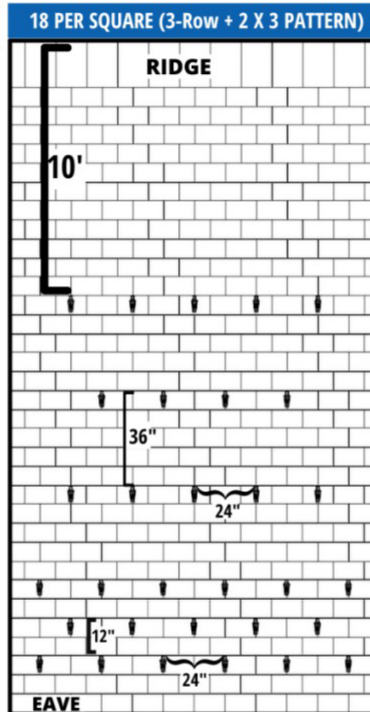
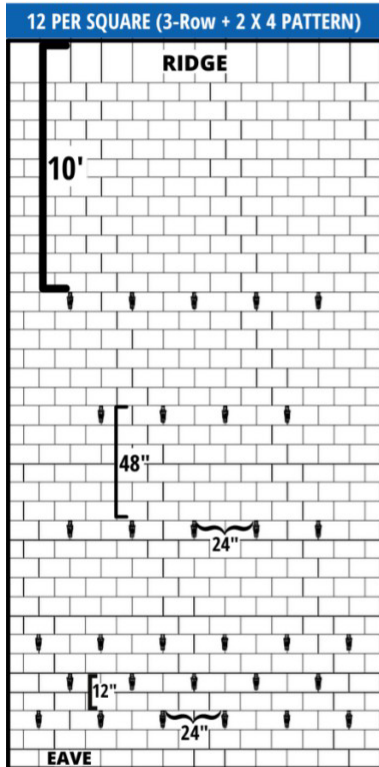
FUSION-GUARD-18 Snow Guard

STANDARD SNOW GUARD LAYOUT OPTION

IMPORTANT: All layouts begin with a 3-row pattern. Estimated quantities provided include 3-row pattern. If you have any questions, please contact us at 888-766-4273.

Please use the guidelines below to determine the appropriate layout for your installation.

PAD LAYOUT GUIDELINES					
Layout	Rafter Length	Ground Snow Load (PSF)	Roof Pitch	Est. Snow Guard QTY.	Spacing
3-Row Pattern	15' or Less	75 psf or Less	16/12 or Less	17 per 10' of Eave	3 rows, 24" on center horizontally with middle row staggered 12". Rows vertically spaced every other course.
4 x 2 Pattern	Greater Than 15'	75 psf or Less	16/12 or Less	12 per roofing square	Space rows 2' horizontally and 4' vertically to within 10' of the ridge.
3 x 2 Pattern	Any	76 - 110 psf	16/12 or Less	18 per roofing square	Space rows 2' horizontally and 3' vertically to within 10' of the ridge.
2 x 2 Pattern	Any	111 - 150 psf	16/12 or Less	24 per roofing square	Space rows 2' horizontally and 2' vertically to within 10' of the ridge.



FUSION-GUARD-18 Snow Guard

ROD INSTALLATION (OPTIONAL):

Refer to Assembly Sheet for Diagram

1. Fasten the Rod Bracket to the snow guard's head using 3 rivets or #6-32 sheet-metal screws.
2. Insert 3/8" rod (RD77) or pipe (PP77).
3. On runs longer than 6', join rods with external couplings (RD87).

Note: 3/8" rod or pipe snow guards must have a break in the assembly every 48' of eave length to allow for thermal expansion, and have a maximum allowable overhang of 6 inches from the end bracket.

4. End collars (RD65) should be placed over the end of each run of rod, on the inside of the outermost brackets. End collars should be installed 1/2" from the bracket.
5. Optional ice flags (RD95) are available.

OPTIONAL ROD LAYOUT GUIDELINES	
Roof Pitch	Alpine SnowGuards' Guideline*
8/12	Rods installed at least on lowest row of pads
9/12	Rods installed at least on lowest 2 rows of pads
10/12	Rods installed at least on lowest 3 rows of pads
Over 10/12	Rods installed on all rows of pads
*Performance will vary with roof pitch, snow loads, density of snow, etc. Some areas may require more rods than others. The number of rows installed is at the discretion of the end user. If the above rod layouts do not meet your desired performance, additional rows of Fusion-Guard may be installed.	

TIGER Drylac® Series 149/138 is available in a matte finish (gloss level 20–30) in the following RAL colors as standard products:

RAL color	Product ID	RAL color	Product ID	RAL color	Product ID	RAL color	Product ID	RAL color	Product ID
RAL 1003	149/21660	RAL 3003	149/30022	RAL 5013	149/49940 138/49940	RAL 7024	149/70029	RAL 8014	149/62090 138/62090
RAL 1007	149/20032	RAL 3004	149/31320	RAL 5015	149/47520	RAL 7032	149/70062 138/70062	RAL 8019	149/62060 138/62060
RAL 1013	149/15042 138/15010	RAL 3011	149/30011	RAL 5017	149/40360 138/40360	RAL 7035	149/72160 138/72160	RAL 8028	149/63930 138/63930
RAL 1018	149/20028	RAL 3020	149/30004	RAL 6002	149/50420	RAL 7037	149/70349 138/70349	RAL 9001	149/10660 138/10660
RAL 1019	149/15370 138/15370	RAL 5002	149/46170	RAL 7001	149/77900 138/77900	RAL 7038	149/70276 138/70276	RAL 9002	149/71750 138/71750
RAL 1021	149/21930	RAL 5003	149/40065	RAL 7011	149/70415 138/70415	RAL 7039	149/73213 138/73213	RAL 9003	149/10268 138/10268
RAL 1023	149/20723	RAL 5005	149/47080	RAL 7012	149/79660 138/79660	RAL 7040	149/73330 138/73330	RAL 9005	149/80350 138/80430
RAL 2004	149/20029	RAL 5009	149/47310 138/47310	RAL 7016	149/73570 138/73570	RAL 7042	149/70215 138/70215	RAL 9010	149/10017 138/10020
RAL 3001	149/30009	RAL 5011	149/41930 138/41930	RAL 7021	149/70052 138/70065	RAL 7043	149/74700 138/74700	RAL 9011	149/81930 138/81930
RAL 3002	149/30035	RAL 5012	149/41020	RAL 7022	149/70053 138/70068	RAL 7044	149/70411 138/70411	RAL 9016	149/10999 138/10999

TIGER Drylac® Series 149/138 is available in the following close approximate (Ca.) RAL metallic colors as standard products:

RAL color	Product ID	RAL color	Product ID	RAL color	Product ID	RAL color	Product ID
Ca. 1035 Pearl Beige	149/15835	Ca. 5026 Pearl Night Blue	149/40127	Ca. 8029 Pearl Copper	149/60064	Ca. 9023 Pearl Dark Grey	149/90015
Ca. 1035 Pearl Beige SD	138/15835	Ca. 5026 Pearl Night Blue SD	138/40127	Ca. 8029 Pearl Copper SD	138/60064	Ca. 9023 Pearl Dark Grey SD	138/90015

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VOL. 3

Powder coatings for exterior & interior applications

Exterior & Interior Applications

TIGER Drylac® Series 149 and **Series 138** are Polyester TGIC-Free weather resistant powder coatings. **TIGER Drylac® Series 149** is suitable for interior and exterior applications while **Series 138** is a super durable (SD) powder coating compliant to AAMA 2604* with excellent weather resistance properties for high performance architectural exterior applications (*AAMA 2604 compliance dependent upon the color and/or effect).

Standard interior applications

TIGER Drylac® Series 09 is a polyester/epoxy-based standard cure powder coating. When lower or faster cure parameters are required, **TIGER Drylac® Series 89** polyester/epoxy-based is recommended. Both **TIGER Drylac® Series 09** and **TIGER Drylac® Series 89** are ideal for applications such as electrical and electronic enclosures, store fixtures, shelving, office and school furniture, ceiling panels, cladding components, radiators, tools and equipment, toys and machinery parts. They provide very good mechanical and flow properties, excellent coverage and good storage stability.

Chemical resistance

TIGER Drylac® Series 69 is an epoxy-based powder coating with excellent chemical and corrosion resistance, very good mechanical and flow properties and good storage stability. It provides excellent coverage. It is ideal for laboratory equipment, machinery parts, pump housing as well as surfaces where increased chemical resistance is required.

Specialties

TIGER Drylac® Series 09 Electrostatic Dissipative (ESD) powder coatings allow a controlled dissipation of the static buildup or prevent the buildup of a high charge in applications such as computer hoods and electronic cabinetry. Resistivity measurements in the lab measure 10⁶ to 10⁹ ohms. It is possible to custom-match colors in a range from dark grey to black.

FDA-compliance

TIGER Drylac® Series 09 FDA-compliant powder coatings are in conformity with the Food and Drug Administration's raw materials requirements of 21 CFR 175.300 "Resinous and Polymeric Coatings". FDA-compliant powder coatings also "conform" and "comply" with the requirements of 21 CFR 178.3297 "Colorants for Polymers". **TIGER Drylac®** has not conducted compliance tests, but rather relies on the raw materials suppliers to provide the appropriate documentation. It is the buyer's and customer's responsibility to test applied parts carrying the mention "FDA approved", as may be required by their customers.

Textured and smooth gloss levels

Smooth flat matte gloss levels range from 0 to 15 units.

Smooth matte gloss levels range from 16 to 25 units.

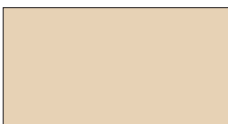
Smooth semigloss gloss levels range from 55 to 65 units.

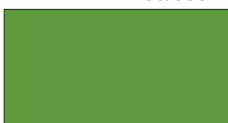
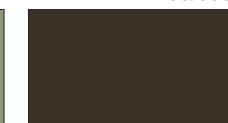
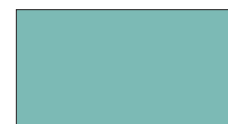
Smooth glossy gloss levels range from 80 to 95 units.

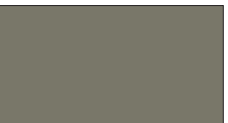
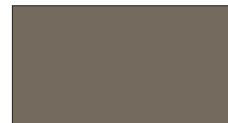
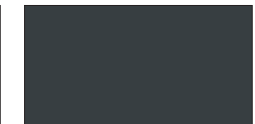
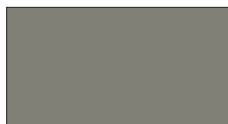
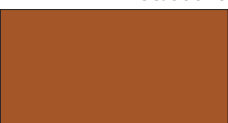
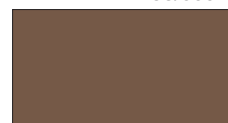
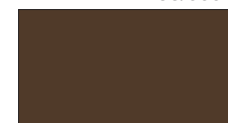
Fine and rough textured gloss levels cannot be measured and are, therefore, accorded visually.

Disclaimer

The colors featured in this color card are matched as accurately as possible to **RAL standards**. Some deviations from the RAL standards might be noticeable due to texture and/or gloss level of the surface finish. Swatches have been matched to color standards at a **45-degree visual angle under a D65 Daylight** primary source. Gloss level on fine and rough textured swatches cannot be accurately measured. The swatches are to be considered as an indication only. In practice, discrepancy between the color swatch and the actual powder coating may arise. This is due to paper and ink limitations, the influence of light and heat during the color card production, as well as gloss level, substrate, surface variations, binder systems and pigments, coating thickness and cure oven conditions used during application. For an accurate color and finish assessment, it is recommended to obtain a powder coated sample panel from **TIGER Drylac®**.

					
RAL 1000	RAL 1001	RAL 1002	RAL 1003	RAL 1004	RAL 1005
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149/72520 138/70031	149/72910 138/70001	149/72510 138/70033	149/72500	149/73510 138/70035	149/72950 138/70036
					
RAL 7037	RAL 7038	RAL 7039	RAL 7040	RAL 7042	RAL 7043
149/72480 138/70037	149/72470 138/70038	149/71020 138/70039	149/75470 138/70046	149/73250 138/70042	149/72460 138/70043
					
RAL 7044	RAL 7045	RAL 7046	RAL 7047	RAL 8000	RAL 8001
149/75480 138/70044	149/77890 138/70045	149/72010 138/70817	149/72020 138/70047	149/66170	149/66160 138/60005
					
RAL 8002	RAL 8003	RAL 8004	RAL 8007	RAL 8008	RAL 8011
149/66150 138/60002	149/66140	149/66130 138/60004	149/66120 138/60007	149/66110 138/60008	149/66100 138/60011
					
RAL 8012	RAL 8014	RAL 8015	RAL 8016	RAL 8017	RAL 8019
149/66090 138/60012	149/65230 138/60010	149/63040	149/66080 138/60016	149/65220 138/60017	149/65490 138/60019
					



Snow Guard Maintenance

Our snow guards must be inspected annually. Any defects or damage in materials and/or workmanship must be reported to Alpine SnowGuards immediately. Seller will not be responsible for snow guard systems that have not been properly maintained.

- Ensure snow guard brackets, accessories & components are intact, have not been displaced, and show no signs of damage or wear.
- Inspect fasteners into roof deck.
- Inspect snow guard-related waterproofing and replace or repair where necessary to ensure roof integrity.
- Snow accumulation on roofs and rooftop solar panels must be removed to avoid damage to the roof or panels, the building structure, and anything below. Heavy snowfalls, drifting, and the gradual accumulation of snow and ice can lead to less-than-ideal snow guard performance.
- Check each clamp set screw with a torque wrench to ensure proper fastening has been maintained (clamp-to-seam models).
- Inspect sealant, tape, and adhesive. Remove and replace as needed.

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