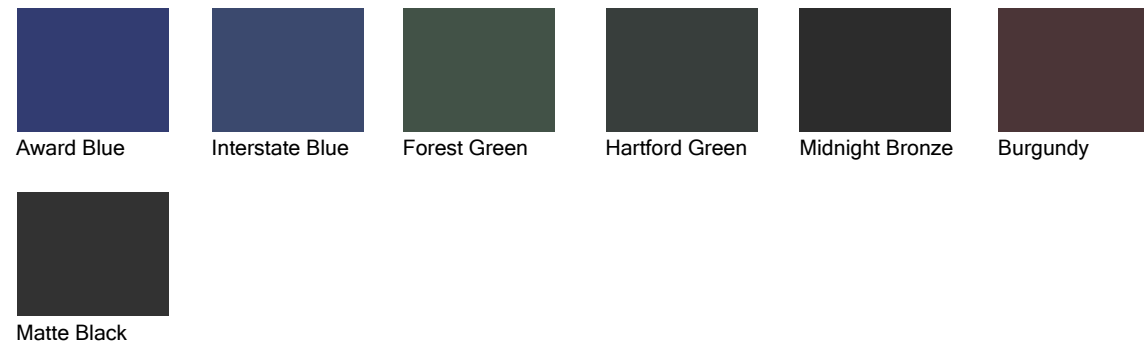




## PAC-CLAD STANDARD COOL COLORS



## STANDARD COLORS (THAT DO NOT MEET COOL ROOF REQUIREMENTS)



## METALLIC COLORS



Due to the limitations of the four color printing process, this color chart is not an accurate representation of our actual color charts and sample chips are available on request at no charge.  
**RECYCLED CONTENT:**  
 PAC-CLAD Aluminum - 88%  
 Post Consumer - 35%  
 Post Industrial - 53%  
 PAC-CLAD Steel - 28% to 35%  
 Post Consumer - 23%  
 Post Industrial - 7.3%

PAC-CLAD STANDARD (COOL COLORS)	REFLECTIVITY	EMISSIVITY	3 YEAR EXPOSURE	SRI*	STEEL		ALUMINUM			ENERGY STAR
					24GA.	22GA.	.032	.040	.050	
Almond	0.56	0.83	0.57	64	.	.	.	.	.	.
Arcadia Green	0.33	0.84	0.32	33	.	.	.	.	.	.
Bone White	0.71	0.85	0.71	86	.	.	.	.	.	.
Cardinal Red	0.42	0.84	0.41	45	.	.	.	.	.	.
Charcoal	0.28	0.84	0.28	27	.	.	.	.	.	.
Cityscape	0.37	0.85	0.34	39	.	.	.	.	.	.
Colonial Red	0.34	0.85	0.33	35	.	.	.	.	.	.
Dark Bronze	0.27	0.85	0.26	26	.	.	.	.	.	.
Evergreen	0.27	0.85	0.25	26	.	.	.	.	.	.
Granite*	0.36	0.84	0.35	37	.	.	.	.	.	.
Hemlock Green	0.30	0.85	0.31	30	.	.	.	.	.	.
Hunter Green	0.26	0.84	0.26	24	.	.	.	.	.	.
Mansard Brown	0.26	0.84	0.24	24	.	.	.	.	.	.
Medium Bronze	0.30	0.85	0.29	30	.	.	.	.	.	.
Military Blue	0.29	0.84	0.28	28	.	.	.	.	.	.
Musket Gray	0.32	0.84	0.31	32	.	.	.	.	.	.
Patina Green	0.34	0.85	0.33	35	.	.	.	.	.	.
Sandstone	0.51	0.83	0.51	57	.	.	.	.	.	.
Sierra Tan	0.38	0.85	0.35	40	.	.	.	.	.	.
Slate Blue	0.25	0.84	0.27	23	.	.	.	.	.	.
Slate Gray	0.38	0.84	0.37	40	.	.	.	.	.	.
Stone White	0.61	0.86	0.59	72	.	.	.	.	.	.
Teal	0.26	0.85	0.26	24	.	.	.	.	.	.
Terra Cotta	0.37	0.84	0.37	39	.	.	.	.	.	.
<b>PAC-CLAD METALLIC COLORS</b>										
Aged Copper	0.27	0.83	0.25	25	.	.	.	.	.	.
Champagne	0.45	0.78	0.41	57	.	.	.	.	.	.
Copper Penny	0.45	0.82	0.42	49	.	.	.	.	.	.
Silver	0.53	0.80	0.51	59	.	.	.	.	.	.
Weathered Zinc	0.27	0.80	0.27	23	.	.	.	.	.	.
Zinc	0.30	0.85	0.30	30	.	.	.	.	.	.
Galvalume Pluss**	0.68	0.14	0.55	57	.	.	.	.	.	.
<b>PAC-CLAD STANDARD COLORS (DO NOT MEET COOL ROOF REQUIREMENTS)</b>										
Award Blue					.	.	.	.	.	.
Berkshire Blue*	0.25	0.84	0.22	23	.	.	.	.	.	.
Burgundy					.	.	.	.	.	.
Forest Green					.	.	.	.	.	.
Hartford Green					.	.	.	.	.	.
Interstate Blue					.	.	.	.	.	.
Matte Black					.	.	.	.	.	.
Midnight Bronze					.	.	.	.	.	.

**Energystar® Performance Criteria:** Emissivity uses ASTM C1371. Reflectivity uses ASTM C1549.  
**Installation:** PAC-CLAD® can be cut, formed, nailed, screwed, or riveted using hand or power tools. Fabricate and install in accordance with drawings and normal sheet metal practices using hand or power tools. Keep cutting edges sharp, clean and properly aligned. Exercise care during fabrication and installation to avoid damage.  
**Maintenance:** Maintenance is not required. This finish is a member of the Teflon family, and is self cleaning. If desired, it can be washed with a mild soap and water followed by a clean water rinse.  
**Sample:** These color reproductions are as accurate as modern printing technology will permit. Free material sample are available on request.  
**Textures:** PAC-CLAD® is available with a smooth texture or a standard E-5 stucco embossed pattern, available at extra cost.  
**Low Gloss/Low Sheen:** This finish is a full Kynar

500® or Hylar 5000® finish, but is formulated in a low gloss. Low sheen in order to minimize the appearance of oil-canning.  
**Samples:** Due to the limitations of the on-screen viewing, this color chart is not an accurate representation of our actual colors. Free material samples are available on request.  
**Technical Data for Kynar 500® / Hylar 5000® Coating:**  
 • Life Expectancy: 20 years exposure: Chalk - rating of 8 or better. Color - <5ΔE (Hunter Units) change.  
 • Accelerated Weathering: (ASTM G-23 Type EH Apparatus) 5,000 hours: Chalk - rating of 8 or better. Color: ≤2ΔE (Hunter Units) color change.  
 • Solvent Resistance: (NCCA procedure 11-18, no comparable ASTM test) - Pass.  
 • Humidity Resistance: (ASTM D 2247, Apparatus A1) - 2,000 hours, hot dipped Galvanized, or 3000 hours, Aluminum: No field blisters.  
 • Salt Spray Resistance: (ASTM B 117), 3,000 hours, aluminum - No creep from scribe; no blisters. 1000

hours, hot dipped galvanized - creep from scribe not to exceed 1/16"; no blisters.  
 • Chemical/Acid Pollution Resistance: (ASTM D 1308) - Pass.  
 • Formability: (ASTM D 4145) - 1T - 3T, No loss of adhesion.  
 • Pencil hardness: (ASTM D 3363) - HB to 2H.  
 • Specular Gloss (ASTM D 523) - At 60 degrees; Typical; 20 - 35 (low gloss/low sheen available).  
 • Abrasion Resistance: (ASTM D 968) - 65±10 liters.  
 • Adhesion: (ASTM D 3359) - No loss of adhesion.  
 • Impact Resistance: (ASTM D 2794) - 1/2" ball indenter, Gardner Impact tester: No cracking; no loss of adhesion.  
 • Flame Test (ASTM E 84) - Class A coating  
**Recycled Content:**  
 For information on recycled content, contact B&B Sheet Metal, 25-40 50th Avenue, Long Island City, NY 11101 or info@bbsheetmetal.com

PAC-CLAD® Metallic finishes are available from stock at a moderate extra cost. PAC-CLAD® Copper Penny is a Non-Weathering finish.  
 Solar Reflectance Index calculated according to ASTM C-1549.  
 \*Low Gloss/Low Sheen  
 \*\*Acrylic coated, non-Kynar Finish.  
 Regardless of which material is selected, the optional stiffening ribs or striations are highly recommended in order to reduce the slight surface waviness of the metal known as "oil-canning." Note: "oil-canning" is a natural phenomenon inherent in sheet metal products and therefore is not cause for rejection of the material.  
 Protective film must be removed immediately after installation. For a true color representation, please call or write for actual metal samples (s).  
 For more information, contact B&B Sheet Metal, 25-40 50th Avenue, Long Island City, NY 11101 or info@bbsheetmetal.com



## PERMACOLOR 3500 FULL STRENGTH 70% KYNAR 500®/HYLAR 5000®



Due to limitations of printing processes, this color chart is not an accurate representation of our actual colors. Sample chips are available on request at no charge.

## PERMAMETALLICS 2500\*



## MILL FINISH



PERMACOLOR 3500	REFLECTIVITY	EMISSIVITY	SRI*	STEEL		ALUMINUM			ALUMINUM		
				24GA.	22GA.	.032	.040	.050	.032	.040	.050
Bone White	67	0.9	81.4	*	*	*	*	*	*	*	*
Burgundy	35.4	0.9	39.2	*	*	*	*	*	*	*	*
Charcoal Gray	30.1	0.9	32.3	*	*	*	*	*	*	*	*
Colonial Red	36.8	0.9	41	*	*	*	*	*	*	*	*
Dark Bronze	29.1	0.9	31	*	*	*	*	*	*	*	*
Deep Red	42	0.91	48.2	*	*	*	*	*	*	*	*
Dove Gray	28	0.9	29.6	*	*	*	*	*	*	*	*
Everglade Moss	32	0.9	34.7	*	*	*	*	*	*	*	*
Forest Green	28.7	0.89	30	*	*	*	*	*	*	*	*
Hartford Green	28.1	0.9	29.7	*	*	*	*	*	*	*	*
Hemlock Green	28	0.92	30.4	*	*	*	*	*	*	*	*
Mansard Brown	31	0.9	33.4	*	*	*	*	*	*	*	*
Matte Black	28.2	0.9	29.8	*	*	*	*	*	*	*	*
Medium Bronze	32.3	0.91	35.6	*	*	*	*	*	*	*	*
Pacific Blue	28.5	0.9	30.1	*	*	*	*	*	*	*	*
Patina Green	39	0.91	44.3	*	*	*	*	*	*	*	*
Royal Blue	28	0.9	29.6	*	*	*	*	*	*	*	*
Sandstone	51	0.9	59.8	*	*	*	*	*	*	*	*
Sierra Tan	35	0.91	39.1	*	*	*	*	*	*	*	*
Slate Blue	31	0.91	33.9	*	*	*	*	*	*	*	*
Slate Gray	40.3	0.9	45.6	*	*	*	*	*	*	*	*
Stone White	62.5	0.9	75.3	*	*	*	*	*	*	*	*
SunNet Blue				*	*	*	*	*	*	*	*
Terra Cotta	34.8	0.89	37.9	*	*	*	*	*	*	*	*
PERMAMETALLICS 3500											
Champagne	38.4	0.91	43.5	*	*	*	*	*	*	*	*
Preweathered galvalume®	45.7	0.91	53.1	*	*	*	*	*	*	*	*
Metallic Copper	43.8	0.9	50.2	*	*	*	*	*	*	*	*
MILL FINISH											
Galvalume-Plus®	68	0.10	54.5	*	*	*	*	*	*	*	*

**PermaColor 3500** Englert's PermaColor 3500 standard 35-year low glass color coating are comprised of a .7 to .9 mil full strength 70% Kynar 500®/ Hylar 5000® fluorocarbon (Polyvinylidene fluoride PVDF) coating over a urethane primer of .2 to .3 mil on the finish side, with primer and a washcoat on the reverse side.

**PPG DURANAR® ULTRA-Cool®** is state-of-the art when it comes to energy-efficient metal roofing. PPG DURANAR® ULTRA-Cool® meets Energy Star® specs for Cool Roofs and not only saves energy but money as well because:

- Hat is reflected away from the building
- Smog is reduced when environmental temperatures are reduced
- Energy costs are saved because of cooler interior spaces
- Life expectancy of the roof is increased due to less expansion and contraction
- Monetary incentives are increasingly being offered for switching to reflective roofing products
- Emissivity values of the coatings exceed 85%

**PermaMetallics 3500** Englert now offers PermaMetallics 3500 with low glass PPG DURANAR® ULTRA-Cool® coatings with a 35 year warranty to match our PermaColor 3500 color palette. Metallic Copper (non-aging). Champagne and Preweathered Galvalume coatings are comprised of a .8 to .9 mil full strength 70% Kynar 500®/Hylar 5000® fluorocarbon (Polyvinylidene fluoride PVDF) coating over a urethane primer of .2 to .3 mil on the finish side, with primer and a washcoat on the reverse.

**Galvalume-Plus®** This product has the advantage of an acrylic coating to reduce mill finish discoloration and uneven weathering. This metal is available as a new hi-tech solution to standard uncoated steel.

**Custom Color** Englert offers a wide range of custom colors with short lead times and low minimum order requirements depending on the type of substrate. Englert can match the color of virtually any material, including brick, wood and fabric.

Regardless of which material is selected, the optional stiffening ribs or striations are highly recommended in order to reduce the slight surface waviness of the metal known as "oil-canning." Note: "oil-canning" is a natural phenomenon inherent in sheet metal products and therefore is not cause for rejection of the material.

Protective film must be removed immediately after installation. For a true color representation, please call or write for actual metal samples (s)

For more information, contact B&B Sheet Metal. 25-40 50th Avenue, Long Island City, NY 11101 or [info@bbsheetmetal.com](mailto:info@bbsheetmetal.com)

For more information, contact B&B Sheet Metal. 25-40 50th Avenue, Long Island City, NY 11101 or [info@bbsheetmetal.com](mailto:info@bbsheetmetal.com)



## UNA-CLAD SOLAR-REFLECTANT COLORS



Due to limitations of printing processes, this color chart is not an accurate representation of our actual colors. Sample chips are available on request at no charge.

## UNA-CLAD SOLAR-REFLECTANT METALLIC COLORS



## UNA-CLAD COLORS (NO SOLAR-REFLECTANT)



● Premium Color  
 ¹ Solar-Reflectance values qualify in steel only  
 ² Solar-Reflectance values qualify in aluminum only

UNA-CLAD COLORS SOLAR-REFLECTANT	REFLECTIVITY	EMISSIVITY	SRI*	STEEL			ALUMINUM			GALVALUME	
				26GA.	24GA.	22GA.	.032	.040	.050	.063	24GA. AZ-50
Almond	0.57	0.86	67	*	*	*	*	*	*	*	*
Bone White	0.70	0.85	85	*	*	*	*	*	*	*	*
Brandywine	0.25	0.85	23	*	*	*	*	*	*	*	*
Charcoal Gray	0.29	0.84	28	*	*	*	*	*	*	*	*
Cityscape	0.37	0.85	39	*	*	*	*	*	*	*	*
Colonial Red	0.31	0.85	31	*	*	*	*	*	*	*	*
Dark Bronze	0.26	0.84	24	*	*	*	*	*	*	*	*
Dark Ivy	0.24	0.83	21	*	*	*	*	*	*	*	*
Hemlock Green	0.29	0.86	29	*	*	*	*	*	*	*	*
Mansard Brown	0.26	0.85	24	*	*	*	*	*	*	*	*
Matte Black	0.26	0.84	17	*	*	*	*	*	*	*	*
Medium Bronze	0.30	0.87	31	*	*	*	*	*	*	*	*
Patina Green	0.29	0.86	29	*	*	*	*	*	*	*	*
Sandstone	0.51	0.85	58	*	*	*	*	*	*	*	*
Sherwood Green	0.27	0.85	26	*	*	*	*	*	*	*	*
Sierra Tan	0.35	0.86	37	*	*	*	*	*	*	*	*
Sky Blue	0.29	0.85	28	*	*	*	*	*	*	*	*
Slate Gray	0.36	0.84	37	*	*	*	*	*	*	*	*
Stone White	0.60	0.86	71	*	*	*	*	*	*	*	*
Regal Red	0.42	0.84	45	*	*	*	*	*	*	*	*
Terra Cotta	0.35	0.87	37	*	*	*	*	*	*	*	*
Tropical Patina	0.28	0.85	27	*	*	*	*	*	*	*	*
<b>UNA-CLAD METALLIC COLORS SOLAR-REFLECTANT</b>											
Champagne Metallic	0.37	0.82	38	*	*	*	*	*	*	*	*
Classic Copper	0.49	0.86	56	*	*	*	*	*	*	*	*
Silver Metallic	0.60	0.77	68	*	*	*	*	*	*	*	*
<b>UNA-CLAD COLORS ( NOT SOLAR-REFLECTANT)</b>											
Award Blue	0.15	0.84	9	*	*	*	*	*	*	*	*
Electric Blue	0.21	0.88	19	*	*	*	*	*	*	*	*
Extra Dark Bronze	0.06	0.88	0	*	*	*	*	*	*	*	*
Hartford Green	0.09	0.88	4	*	*	*	*	*	*	*	*
Regal Blue	0.16	0.86	12	*	*	*	*	*	*	*	*
Teal	0.13	0.85	7	*	*	*	*	*	*	*	*

Regardless of which material is selected, the optional stiffening ribs or striations are highly recommended in order to reduce the slight surface waviness of the metal known as "oil-canning." Note: "oil-canning" is a natural phenomenon inherent in sheet metal products and therefore is not cause for rejection of the material.

Protective film must be removed immediately after installation. For a true color representation, please call or write for actual metal samples (s)

For more information, contact B&B Sheet Metal, 25-40 50th Avenue, Long Island City, NY 11101 or [info@bbsheetmetal.com](mailto:info@bbsheetmetal.com)