



*From the roof to the road to the dinner table, our rocks improve lives.*

## Solar Reflective Roofing Granules | #11 Grade

### Technical Product Summary

For almost 100 years, SGI has been a leader in supplying specialized mineral products to the North American building materials industry. Consistent, high-quality products, science-backed solutions, and exceptional customer service set SGI apart, and make SGI products the preferred choice.

#### Granule Properties

Specific Gravity (SGI HLP-74)  
Bulk Density - Loose in lbs./ft<sup>3</sup> (SGI MP-13)  
Baserock Hardness - Barrett (SGI MP-7)  
Emittance (SGI MP-66)

#### Typical

2.72-2.85  
87-92  
>80  
85-92

#### Solar Reflective Roofing Granule Products

##### Minimum Total Solar Reflectance Values

Color	SolarShield™ (Generation 1)	Generation 2	Generation 3
Gray-Green	I-116R2 0.31	I-116T 0.22	
Black		I-340T 0.17	I-340U 0.20
Light Black	I-341R 0.24	I-341T 0.2	I-341U 0.23
Dark Black		I-342T 0.13	I-342U 0.16
Cinnamon		I-546T 0.22	
Brown	I-552R2 0.25	I-552T 0.19	I-552U 0.21
Antique Gold		I-556T 0.24	
Buff	I-560R2 0.36	I-560T 0.28	
Gray		I-760T 0.25	
Accent Tone	I-801R 0.31	I-801T 0.20	

SGI's solar reflective roofing granules provide increased solar reflectivity to enable manufacture of asphalt shingles with increased energy efficiency. By limiting the transmission of solar infrared radiation through the shingle, the heat load can be reduced to the building structure, providing energy and cost-savings to the customer.

**SolarShield™** granules, SGI's first generation of reflective granules, is available in limited colors, designed to provide high Total Solar Reflectance (TSR) values in lighter, more muted color tones. SGI's Generation 2 reflective line provides a full color palette, matching standard granule colors, which allows reflective shingle designs in deeper, richer colors similar to standard shingle products. The Generation 3 reflective line provides additional TSR in the darkest colors available to address the most challenging reflectance goals.

#### Color

Fired granule appearance prior to oiling will be +/-1.0 color units of standard L, a, b scales (SGI MP-23).

Color Permanence is demonstrated by long-term performance in natural weathering and short-term testing using accelerated weathering equipment.

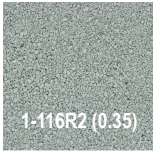

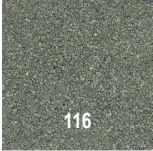
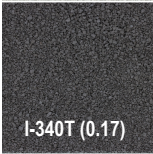
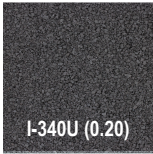
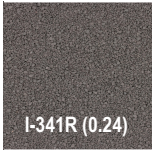




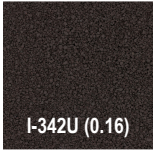

















#### Availability

SGI | Lone Plant  
Lone, CA  
Plant Phone: 209-274-2930  
Customer Service: 866-613-9658



This palette compares color hue of SGI's Generation 1, Generation 2, and Generation 3 Solar Reflective Granules with SGI's comparable standard semi-ceramic coated colored roofing granules.

**Solar Reflective Roofing Granule Products**  
(Minimum Total Solar Reflectance Values)

	Generation 1	Generation 2	Generation 3	Standard
<b>Gray-Green</b>	 1-116R2 (0.35)	 1-116T (0.22)		 116
<b>Black</b>		 I-340T (0.17)	 I-340U (0.20)	
<b>Light Black</b>	 I-341R (0.24)	 I-341T (0.20)	 I-341U (0.23)	 340 Light Black
<b>Dark Black</b>		 I-342T (0.13)	 I-342U (0.16)	 340 Dark Black
<b>Cinnamon</b>		 I-546T (0.22)		 546
<b>Brown</b>	 I-552R2 (0.25)	 I-552T (0.19)	 I-552U (0.21)	 552
<b>Antique Gold</b>		 I-556T (0.24)		 556
<b>Buff</b>	 I-560R2 (0.36)	 I-560T (0.28)		 560
<b>Gray</b>		 I-760T (0.25)		 760
<b>Accent Tone</b>	 I-801R (0.31)	 I-801T (0.20)		 801

Please note: Printing does not always accurately reflect true granule color. Samples should be viewed.