

ATAS INTERNATIONAL, INC.

Total Solar Reflectance and Thermal Emittance Measured on ATAS Materials

Revised 10/20/06

Category	ATAS No.	Name	Description	Total Solar Reflectance (%) (ASTM E903 or C1549)		Thermal Emittance ASTM C1371 or (ASTM E408)	Solar Reflectance Index (SRI) (ASTM E1980)	Meets ENERGY STAR®*			Meets LEED® - NC v. 2.2 Credit 7.2 Heat Island Roof	Listed by CRRC
				Initial	3-Year			Steep Slope	Low Slope	Listed by ENERGY STAR		
Painted	629	Char Brown	Low Gloss	7.5	---	0.86	1					
Painted	611	Forest Green	Low Gloss	14.0	---	0.87	10					
Painted	Special	Forest Green (CR)	Low Gloss	27.0	---	---	---	Yes**				
Painted	608	Mission Red	Low Gloss	32.0	32.0	(0.89)	34	Yes		++	+++	
Painted	616	Rocky Grey	Low Gloss	15.3	---	0.85	10					
Painted	609	Sierra Tan	Low Gloss	32.9	---	(0.89)	35	Yes**			+++	
Painted	620	Slate Grey	Low Gloss	20.7	---	0.85	17					
Painted	24	Antique Patina	Std. Gloss	26.0	---	(0.89)	26	Yes**				
Painted	10	Ascot White	Std. Gloss	60.0	60.0	(0.89)	72	Yes		++	+++	
Painted	02	Black	Std. Gloss	6.0	---	0.85	-2					
Painted	26	Bone White	Std. Gloss	69.0	---	(0.89)	84	Yes**	Yes**		+++	
Painted	25	Boysenberry	Std. Gloss	14.0	14.0	(0.90)	11					
Painted	17	Brite Red	Std. Gloss	37.4	---	---	---	Yes**				
Painted	31	Champagne	Std. Gloss	---	---	---	---					
Painted	04	Chocolate Brown	Std. Gloss	10.0	10.0	(0.90)	6					
Painted	01	Classic Bronze	Std. Gloss	8.7	---	0.85	2					
Painted	05	Concord Cream	Std. Gloss	55.0	55.0	(0.89)	65	Yes		++	+++	
Painted	23	Coppertone	Std. Gloss	50.0	51.0	(0.86)	57	Yes		Pending	+++	
Painted	Special	CR White (special)	Std. Gloss	70.0	---	(0.87)	85	Yes**	Yes**		+++	Yes
Painted	13	Dove Grey	Std. Gloss	31.0	31.0	(0.89)	33	Yes		++	+++	
Painted	11	Forest Green	Std. Gloss	15.8	---	0.85	11					
Painted	Special	Forest Green (CR)	Std. Gloss	27.0	---	---	---	Yes**				
Painted	27	Hartford Green	Std. Gloss	10.0	10.0	(0.88)	5					
Painted	30	Hemlock Green	Std. Gloss	18.0	18.0	(0.84)	13					
Painted	03	Medium Bronze	Std. Gloss	11.0	11.0	(0.89)	7					
Painted	22	Mint Green	Std. Gloss	29.0	29.0	(0.89)	30	Yes		++	+++	
Painted	08	Mission Red	Std. Gloss	31.5	---	(0.89)	33	Yes**			+++	
Painted	12	Patina Green	Std. Gloss	23.0	23.0	(0.88)	22					
Painted	15	Rawhide	Std. Gloss	43.0	43.0	(0.89)	49	Yes		++	+++	
Painted	07	Redwood	Std. Gloss	20.9	---	0.85	18					

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				Initial	3-Year			Steep Slope	Low Slope	Listed by ENERGY STAR		
Painted	18	Regal Blue	Std. Gloss	15.0	15.0	(0.88)	12					
Painted	16	Rocky Grey	Std. Gloss	14.6	---	0.85	9					
Painted	06	Sandstone	Std. Gloss	46.0	46.0	(0.88)	52	Yes		++	+++	
Painted	14	Siam Blue	Std. Gloss	31.0	31.0	(0.88)	32	Yes		++	+++	
Painted	09	Sierra Tan	Std. Gloss	34.7	---	(0.90)	38	Yes**			+++	
Painted	28	Silversmith	Std. Gloss	49.0	49.0	(0.88)	56	Yes		++	+++	
Painted	21	Slate Blue	Std. Gloss	20.0	20.0	(0.90)	19					
Painted	20	Slate Grey	Std. Gloss	21.4	---	0.85	18					
Painted	19	Teal	Std. Gloss	21.0	21.0	(0.89)	20					
Unpainted	797	Galvalume® Plus	---	68.0	57.0	0.08	55	Yes	Yes	++	+++	
Unpainted		Anthra Zinc Pre-Weathered	---	6.0	---	0.64	-15					
Unpainted		Quartz Zinc Pre-Weathered	---	20.0	---	0.33	-18					
Unpainted (anodized)	471	Dark Bronze	---	15.0	---	0.77	6					

Shaded cells are "Special" paint systems. Inquire about other, high-reflectance colors.

* ENERGY STAR® Requirements:

Steep Slope > 2:12 0.25 initial; 0.15 after 3 years

Low Slope <= 2:12 0.65 initial; 0.50 after 3 years

** Meets ENERGY STAR® requirements based on initial reflectance only. No data available after 3 years.

++ Selected ATAS roofing products are ENERGY STAR® qualified with these paint systems. Contact ATAS for further information.

+++ Meets LEED® - NC Version 2.2 Credit 7.2 requirements for Heat Island Effect - Roof. Minimum SRI for Low Slope (<= 2:12) is 78 and for High Slope (> 2:12) is 29.