

Reflectance of Roof Materials

Material	% Solar Reflectance	Heat Gain Of Roof
Bright white coating on smooth surface	80%	Plus 15° F.
White membrane	70%-80%	Plus 15°-25° F.
White metal	60%-70%	Plus 25°-36° F.
Bright white coating on rough surface	60%	Plus 36° F.
Bright aluminum coating	55%	Plus 51° F.
Premium white shingle	35%	Plus 60° F.
Generic white shingle	25%	Plus 70° F.
Light brown/gray shingle	20%	Plus 75° F.
Dark red tile	18%-33%	Plus 62°-77° F.
Dark shingle	8%-19%	Plus 76°-87° F.
Black shingle or materials	5%	Plus 90° F.

Heat Gain Of Roof = The increase of the roof surface temperature above ambient air temperatures.

Source: Oak Ridge National Laboratory, Lawrence Berkeley National Laboratory, and the Florida Solar Energy Center