

Technical Bulletin

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Total Solar Reflectivity (TSR) for ColorCote pre-painted products

Pacific Coilcoaters' ColorCote range of products is used in the manufacture of roofing and vertical cladding for New Zealand buildings. Some local councils as part of their consenting process now require exterior roof and wall cladding colours to fall with a range of specified Total Solar Reflectivity (TSR) values.

Total Solar Reflectivity (TSR) measures the total amount of solar energy (visible, infrared and ultraviolet) that is reflected from a surface. TSR is expressed as a percentage from 1 to 100, with the higher the number the more solar radiation that is reflected. Whilst typically lighter colours often have a high TSR value and dark colours have a lower TSR value, this can be influenced by the pigments and technology used within the paint system itself.

The following table details the TSR values for the ColorCote range of standard colours.

ColorCote Colour	TSR Value %	ColorCote Colour	TSR Value %
Black	7	Pacific White	73
Bone White	56	Pebble	47
Desert Sand	56	Permanent Green	29
Forest Fern	29	Pioneer Red	37
Grey Flannel	37	Poppy	47
Grey Friars	26	Rivergum	24
Gull Grey	55	Sandstone Grey	40
Horoeka	23	Scoria	30
Iron Sand	26	Seabird	29
Karaka	25	Slate	27
Lazerite Blue	25	Slate Blue (G10)	22
Lichen	41	Smokey	42
Lignite	30	Smooth Cream	69
Metallic Gun Metal	34	Storm Blue	29
Metallic Silver	48	Terracotta	44
Mist Green	40	Threadbow White	74
Mudstone	33	Thunder Grey	31
New Denim Blue	27	Titania	67
Nimbus	36	Weathered Copper	30
Off White	69	Windsor Grey	24
Pacific Cloud	69		

Note: Variations in values may occur between different batches of product due to manufacturing processes and tolerances