PRODUCT INFORMATION:
The Landmark TL® Solaris innovative technology produces a shingle that reflects solar energy in a traditional color palette. All colors are rated by Cool Roof Rating Council (CRRC) and can be used to comply with California Title 24 Part 6 Cool Roof Requirements. These shingles are constructed using three laminated layers of the industry’s most durable materials, providing a dramatically thick roofing product styled with the classic appeal of wood shakes. The overall dimensions of this shingle are 13 1/4" x 40". It is designed to resist blow off in high wind conditions up to 110-mph with normal installation and 130-mph with special installation.

Colors: Please refer to product brochure or CertainTeed website for the colors available in your region.

<table>
<thead>
<tr>
<th>Color</th>
<th>CRRC Product ID#</th>
<th>Solar Reflectance</th>
<th>Thermal Emittance</th>
<th>Solar Reflective Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Initial</td>
<td>Aged*</td>
<td>Initial</td>
</tr>
<tr>
<td>Country Gray</td>
<td>0668-0149</td>
<td>0.21</td>
<td>0.20</td>
<td>0.92</td>
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<td>0668-0147</td>
<td>0.21</td>
<td>0.20</td>
<td>0.93</td>
</tr>
</tbody>
</table>

*Aged Ratings determined by CRRC Rapid Ratings.
**Calculated using aged ratings determined by CRRC Rapid Ratings.

Limitations: It is recommended to apply these shingles at slopes of 4” per foot and greater in order to achieve optimum appearance. Low slope applications (2:12 to < 4:12) require CertainTeed’s WinterGuard® Waterproofing Shingle Underlayment, or its equivalent meeting ASTM D1970, to be applied to the entire deck surface, according to application instructions provided with the product and on the shingle package. In areas where icing along the eaves can cause the back-up of water (all slopes); apply WinterGuard, or its equivalent, according to application instructions provided with the product and on the shingle package.

Product Composition: Landmark TL Solaris shingles are composed of a fiber glass mat base. Ceramic-coated mineral granules with high solar reflectance are tightly embedded in carefully refined, water-resistant asphalt. Three pieces of the shingle are firmly laminated together in a special, tough asphaltic cement. All Landmark TL Solaris shingles have self-sealing adhesive strips.

Applicable Standards:
- ASTM D3018 Type 1
- ASTM D3462
- ASTM E108 Class A Fire Resistance
- ASTM D3161 Class F Wind Resistance
- ASTM D7158 Class H Wind Resistance
- UL 790 Class A Fire Resistance
- Meets TDI Windstorm Requirements

Technical Data:
- Weight/Square (approx.): 305 lb.
- Dimensions (overall): 13 1/4"x 40"
- Shingles/Square: 64
- Weather Exposure: 5-5/8"
INSTALLATION
The following is a general summary of the installation methods. Detailed installation instructions are supplied on each bundle of Landmark TL Solaris shingles and must be followed. Separate application sheets may also be obtained from CertainTeed.

Roof Deck Requirements: Apply shingles to minimum 3/8" thick plywood, minimum 7/16" thick non-veneer (e.g. OSB), or minimum 1" thick (nominal) wood decks. The plywood or non-veneer decks must comply with the specifications of APA – The Engineered Wood Association.

Ventilation: Provisions for ventilation should meet or exceed current HUD Standards. To ensure adequate balance ventilation, use a combination of continuous ridge ventilation (using CertainTeed Ridge Vent products, or a comparable product with an external baffle) combined with soffit venting.

Valleys: Open valley is recommended. Valley liner must be applied before shingles. It must be minimum 18" wide 16 oz. copper, or its equivalent, installed over 36" wide self-adhering CertainTeed’s WinterGuard Waterproofing Shingle Underlayment (apply directly to deck), or applied over 36" wide mineral surfaced roll roofing. After WinterGuard has been applied, install the 16-oz. copper centered in the valley. For application of copper valley, use copper cleats or large head copper nails. Closed-Cut valley application is an acceptable alternate, provided the shingles are not damaged while being formed into place. Refer to the application instructions on the shingle packaging for further information.

Underlayment:
On slopes 4" per foot or greater, CertainTeed recommends one layer of DiamondDeck® or RoofRunner™ Synthetic Underlayment, Roofers’ Select® High-Performance shingle underlayment, or shingle underlayment meeting ASTM D226, D4869 or ASTM D6757. Always ensure sufficient deck ventilation, and take particular care when DiamondDeck or other synthetic underlayment is installed. For UL fire rating, underlayment may be required. Corrosion-resistant drip edge is recommended and should be placed over the underlayment at the rake and beneath the underlayment at the eaves. Follow manufacturer’s application instructions.

On low slopes (2:12 to < 4:12), one layer of CertainTeed’s WinterGuard Waterproofing Shingle Underlayment (or equivalent meeting ASTM D1970) MUST BE APPLIED OVER THE ENTIRE ROOF. One layer of felt or synthetic underlayment meeting ASTM D226, D4869 or ASTM D6757 applied over the REQUIRED WinterGuard is also recommended. IMPORTANT: Applying two layers of felt or synthetic underlayment IS NOT an acceptable alternative to WinterGuard.

Fastening: Four nails are required per shingle. Nails must be of sufficient length to penetrate into the deck 3/4" or through the thickness of the decking, whichever is less. They must be placed within the nail lines marked on the shingle. Fasteners are to be located 1" and 13 1/2" in from each side of the shingles (see instructions on product wraps). Nails are to be 11 or 12 gauge, corrosion-resistant roofing nails with 3/8" heads. Staples are not allowed.

On slopes greater than 21" per foot, fasten each shingle with six nails and apply four spots of roofing cement placed under each shingle according to application instructions provided on the shingle package.

Application: The recommended application method is the ‘Five-Course Diagonal Method’ found on each bundle of shingles. In this method, shingle course offsets are 6" and 11". Instructions also may be obtained from CertainTeed. These shingles may be used for new construction or for reroofing over shingles of 5-5/8" exposure.
Flashing: Use corrosion-resistant metal flashing.

Hips and Ridges: Use CertainTeed’s Shadow Ridge® or one of CertainTeed’s enhanced high profile accessory shingles (e.g. Mountain Ridge®) of a like color for capping hips and ridges.

MAINTENANCE
Landmark TL Solaris shingles do not require maintenance when installed according to manufacturer’s application instructions. However, to protect the investment, any roof should be routinely inspected at least once a year. Older roofs should be looked at more frequently.

WARRANTY
Landmark TL Solaris shingles carry a lifetime limited, transferable warranty against manufacturing defects. In addition, all Landmark TL Solaris shingles carry 10-year SureStart™ Protection. For specific warranty details and limitations, refer to the warranty itself (available from the local supplier, roofing contractor or on-line at www.certainteed.com).

FOR MORE INFORMATION
Sales Support Group: 800-233-8990
Web site: www.certainteed.com
See us at our on-line specification writing tool, CertaSpec, at www.certainteed.com/certaspec.