

Single-ply membranes are pre-fabricated sheets rolled onto the roof held in place with ballast (gravel, stones, or pavers), mechanical fasteners or chemical adhesives. Reformulate or coat black membranes to make reflective and an eligible cool roof.

Built-up roofs consist of a base sheet, fabric reinforcement layers, and protective surface layer. The surface layer can be made different ways, and each has cool options:

- Substitute reflective marble chips or gray slag for dark gravel in a flood coat of asphalt
- Use reflective mineral granules or a factory-applied coating rather than a dark coating on a mineral surfaced sheet
- Apply a cool coating directly on top of a dark asphaltic emulsion coating.

Modified bitumen sheet membranes have layers of smooth or granular material used to surface a built-up roof—known as a "hybrid" roof. Pre-coat with a cool roof coating at the factory.

Spray polyurethane foam roofs usually are already reflective and offer cool roof performance.

Steep Sloped Roofs

Shingle roofs consist of overlapping panels made from a variety of materials such as fiberglass asphalt, wood, polymers, or metals.

Buy cool asphalt shingles, which use specially coated granules that meet cool roof standards.

Tile roofs may be naturally reflective enough to achieve cool roof standards. Surface treatments can transform tiles with low solar reflectance into cool roof tiles.

Low and Steep Sloped Roofs

Metal roofs are typically good solar reflectors, but poor thermal emitters that rarely satisfy low slope cool roof requirements. Painting a metal roof or applying cool reflective coatings can increase its solar reflectance and thermal emittance, allowing it to achieve cool roof status.

Green Roofs

Rooftop gardens and green roofs are eligible for financing as are pre-paid service and maintenance plans. Energy savings can be estimated through use of the Living Architecture Performance Tool (LAPT) or engineering evaluation.

Wind Resistant Roofs

Roofs that strengthen the roof deck attachment and/or include gable-end bracing and reinforced roof-to-wall connections are eligible in Florida* and certain other jurisdictions. Wind resistant shingles are also eligible for financing.

Cost and Energy Savings

[Cool Roof Calculator](#) may be used to estimate energy savings.

Most projects are cash flow positive from Day One as the long-term, fixed rates up to estimated useful life (EUL) make utility savings from increased energy efficiency exceed annual repayments.

REFERENCE and to learn more: <https://www.energy.gov/energysaver/energy-efficient-home-design/cool-roofs>

*Broward County is considering legislation that requires improvements to be EnergyStar certified or comply with Cool Roof Standards as follows: low with the following additional performance standards: low-slope roofs (<2.12) require initial solar reflectance 0.65 and SRI 78; high-slope roofs > 2.12 require same solar reflectance and SRI of 29 or greater with performance guarantee of at least 3 years.