Staff Webinar

Proposed Compliance Option: Low-Sloped Roofs That Use Aggregate as the Surface Layer

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Low-Sloped Roofs
That Use Aggregate as the Surface Layer

- Introduction
- Purpose
- Compliance option process
- Aggregate roofing materials
- Field data
- Proposed default reflectance and eligibility criteria
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- LBNL field data
  (OCTOBER 2012, CEC-500-2012-083)
  - Purpose
  - Methodology
  - Findings
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• LBNL findings:
  – Solar reflectance of aggregate roof surfacing aged 1 to 20 years ranged from about 0.52 to 0.48
  – Aggregate retains a solar reflectance of about 0.50 ($\pm 10\%$) over a 20-year period
  – Thermal emittance of an aggregate would be at least 0.90
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Proposed default cool roof properties:

- An aged solar reflectance of 0.50
- A thermal emittance of 0.85
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Proposed eligibility criteria:

- Conforms to material standard ASTM D1863.
- Conforms to ASTM D448, size number equal between No.6 and No.7.
- Has a tested initial solar reflectance that meets or exceeds 0.55 meeting the requirements of CRRC-1 using the ASTM E1918 test procedure conducted by an independent laboratory meeting the requirements of Section 10-113(d)4 of the Building Energy Efficiency Standards.
- Aggregate shall pass a No. 4 sieve and is retained by a No. 8 sieve that conforms to ASTM D448.
- Has a label on bags or containers of aggregate stating the tested initial solar reflectance and that the materials conform to ASTM D1863 and ASTM D448.
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• Questions?
• Comments?
  – Send comments to:

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