

Case Study

A commercial project has a roof area of 11,000 m², of which 2,100 m² is covered by mechanical equipment. The effective roof area of the project is 8,900 m², in which 1,800 m² area is shaded by solar panels. To comply with the regulation, the project is proposing high reflective roof with SRI 83 for an area of 6,000 m². The project team can calculate the compliance using equation provided above.

$$\frac{\text{Area of high reflectance roof (6,000 m}^2\text{)} + \text{Area covered by Solar PV (1,800 m}^2\text{)}}{\text{Total effective roof area (8,900 m}^2\text{)}} = 87\%$$

The total percentage of high reflectance roof is 87%, which is exceeding the required percentage of 75%, thereby the project complies with this regulation.

COMPLIANCE DOCUMENTATION

Table 304.01(3): Documents Required

Project Stages	Submittal Documents
Design Permit Application	<ol style="list-style-type: none"> 1. Provide roof drawings as per the requirements. It must indicate the total roof area, the effective roof area available and areas utilised by services. 2. Roof area calculations confirming compliance to the requirements. 3. Glazed elements schedule .
Construction Completion Application	<ol style="list-style-type: none"> 1. Provide as-built roof drawings as per the requirements. It must indicate the total roof area, the effective roof area available and areas utilised by services. 2. Purchase receipts/delivery notes for the roof material. 3. DCL certificate for the SRI value.
After Completion	Not applicable.