

Technical Recommendations – Open Balcony (Roof Tile / Pergola Integration)

1. Structural System

- Use **galvanized steel or treated steel sections** for durability
- Ensure structural design accounts for:
 - Dead load (tiles + structure)
 - Wind uplift forces (critical in open balconies)

2. Roof Slope

- Minimum slope: **25°**
- Recommended: **30°–35°** for better drainage and self-cleaning
- Avoid flat or near-flat designs in open areas

3. Waterproofing & Drainage

- Install full **waterproof membrane under tiles**
- Provide **visible or hidden gutters** depending on design
- Ensure proper water discharge points away from façade

4. Thermal & Comfort Considerations

- Add **thermal insulation layer** (rock wool or rigid boards) if balcony is occupied space below
- Improve airflow design for cooling in summer

5. Fixing System

- Mechanical fixing is mandatory (clips/screws)
- Use **wind-resistant edge fixing** on all exposed sides

6. Exposure Considerations (Important for Open Balconies)

- Increase fastening density in windy zones
- Use side closures to prevent rain and dust ingress
- Avoid long unsupported spans without intermediate supports

7. Finishing Details

- Proper ridge caps and edge trims are essential for aesthetics and sealing
- Ensure clean integration with façade and balcony railing design