

Nulok Solar Tile Roofing System

Technical Specification for Architects, Builders, and Surveyors

1. Product Overview

Nulok Solar Tile Roofing System is a modular, steel-framed roofing system for use on pitched roofs (10-70 degrees), suitable for new builds, re-roofing, and refurbishment. The system enables seamless integration of active 60W solar tiles (SolActrix) with natural slate, ceramic, or other compatible tiles, offering aesthetic, energy-efficient, and future-ready solutions.

2. Certification & Compliance

- BBA Certificate: 21/5922 - Nulok Roofing System
- MCS Certificate: MR 50653529 (TUV Rheinland)
- IEC Certification: IEC 61215, IEC 61730
- Fire Classification: A1 (galvanised steel battens and clips) to BS EN 13501-1
- Service Life: In excess of 25 years (BBA)

3. Materials

- Battens: Hot-dipped galvanised mild steel (DX51D+ Z275, BS EN 10346)
- Link Channels: Galvanised steel S350GD + Z140, black e-coating (BS EN 10346)
- Spring Clips: 1.6mm diameter, 1.4310 stainless steel (BS EN 10270-3)
- Tiles: Natural slate, exclusive ceramic tile, or Nulok Solar Tiles (60W SolActrix)
- Solar Tiles:
 - Type: SolActrix Active (60W)
 - Size: 1200 x 400 x 6 mm
 - Cell Efficiency: up to 22.8%
 - Weight: 6.6 kg per tile
 - Glass: 2.5 mm tempered, low iron
 - Junction Box: IP67
 - Connector: MC4 Compatible
 - Snow Load: 5400 Pa
 - Wind Load: 2400 Pa
 - Hail Resistance: 28mm at 23 m/s
 - Operating Temp: -40C to +85C

4. Installation

- Pitch Range: 10-70 degrees
- Rafter Spacing: Max 600mm centres
- Batten Spacing: 307mm centres

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- Fixings: 5.5 x 50mm hex drive screws or equivalent
- Tiles/solar tiles secured with stainless steel spring clips
- Underlay & Flashings: As per project design and best practice
- Ventilation: In accordance with BS 5250:2011 (or current standard)
- Workmanship: Install to manufacturer's manual, BS 5534, and BBA certificate

5. Performance & Testing

- Wind Uplift Resistance: Up to 1.5 kN/m² (BBA)
- Fire Performance: A1 (steel battens & clips) BS EN 13501-1
- Weathertightness: As per BS 5534 & project underlay
- Thermal Impact: System does not compromise insulation or ventilation
- Structural Stability: Complies with BS EN 1990 & relevant Eurocodes

6. Maintenance & Warranty

- Service Life: 25+ years (BBA-certified)
- Warranty:
 - 25 years: 80% power output (solar)
 - 12 years: 90% power output
 - 10 years: Materials/workmanship
- Maintenance: Annual inspection recommended; clear debris, inspect after storms

7. Safety, Site, & Quality

- Site Storage: Dry, level, covered
- Safety: Follow all CDM, site-specific, and manufacturer safety guidance; PPE mandatory
- Quality Control: Regular inspection and adherence to installation manual; quality records to be kept for handover

8. Compliance & Standards

- BS 5534: Slating/tiling for pitched roofs
- BS 5250: Condensation control
- BS 8000-6: Workmanship
- BS EN 1990/1993/1995: Structural design for steel/timber
- Building Safety Act 2023
- Fire Classification: A1 to BS EN 13501-1 (steel components)
- Sustainability: All steel is 100% recyclable; system minimises waste

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9. Downloads & Contact

To download the full specification, BBA certificate, and MCS certificate, please visit our website or contact us directly.

For project-specific advice, detailed drawings, or NBS-format specification, contact:

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