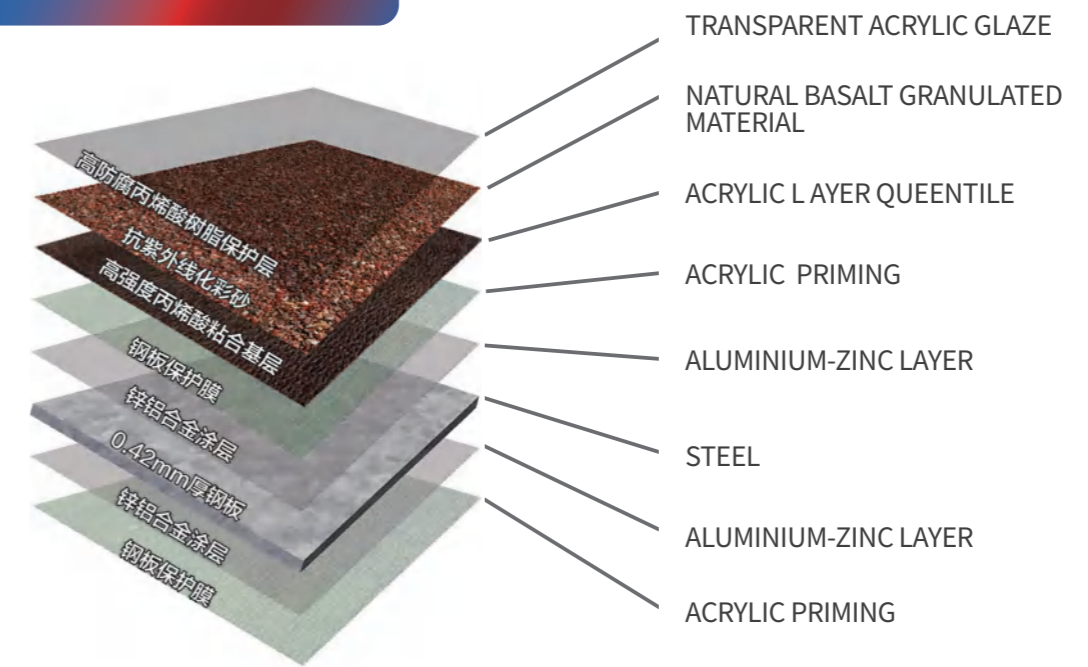


Stone Coated Metal Roofing Tile



Stone-coated metal tiles are a multi-layer composite roofing material composed of high-quality cold-rolled steel plate coated with 55% aluminum, 43.4% zinc, and 1.6% silicon, high-weatherability acrylic resin, and color granules sintered at 2000°C. The base plate is mechanically molded and coated with 7 layers of protective and decorative coatings, ensuring long-lasting durability, extreme weather resistance, and excellent decorative appeal. Essar Stone-Coated Tiles have a lifespan of over 30 years. Under extreme climate conditions, such as 70°C high temperatures, -40°C low temperatures, storms, high humidity, and high salt spray, the tile shape remains unchanged, the base plate shows minimal corrosion, and the stone-coated layer exhibits no blistering, peeling, cracking, or color fading.

Characteristics



Structure & Features

- ✓ Gloss Coat: 85° gloss, UV ≥ 4000 h (QUV), Water penetration $< 0.1 \text{ g/m}^2 \cdot 24\text{h}$
- ✓ Stone Granules: 2000°C sintered basalt, size 1.0–2.0 mm, density 3.8 kg/m³
- ✓ Adhesive Layer: Polymer bonding (Tg 45°C), Peel $\geq 5 \text{ N/mm}$, WVTR $< 0.05 \text{ g/m}^2 \cdot \text{day}$
- ✓ Al-Zn Coating (AZ150): 55% Al, 43.4% Zn, 1.6% Si, Salt spray > 3000 h
- ✓ Steel Substrate: 0.20–0.60 mm, Yield strength $\geq 350 \text{ MPa}$
- ✓ Backside Protection: Solar reflectance $\geq 70\%$, Thermal emittance ≤ 0.25
- ✓ Primer: Chromium-free, Hardness 3H, Anti-fingerprint

Performance

- ✓ Total thickness: 1.0–2.5 mm
- ✓ Standards: EN 506 / ASTM D3462
- ✓ Fire rating: Class A (ASTM E108)
- ✓ Warranty: 30 years

Innovative Sixth Generation Roofing Tiles



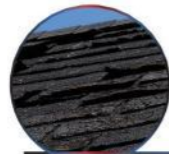
1st Generation: Clay Tiles
 High-temperature fired, brittle, easy to crack, high maintenance cost, low impact resistance. Severe damage after one hailstorm.



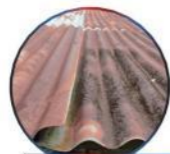
2nd Generation: Cement Tiles
 Concrete tiles, prone to delamination, cracking, and leakage. Low grade, heavy weight, high maintenance cost.



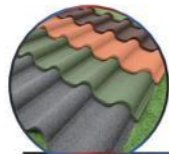
3rd Generation: Resin Tiles
 Not weather-resistant, prone to aging, cracking, fading, and deformation. Short lifespan.



4th Generation: Asphalt Shingles
 Low overall strength, no 3D appearance, poor texture, flammable, strong odor, prone to aging. Short lifespan.



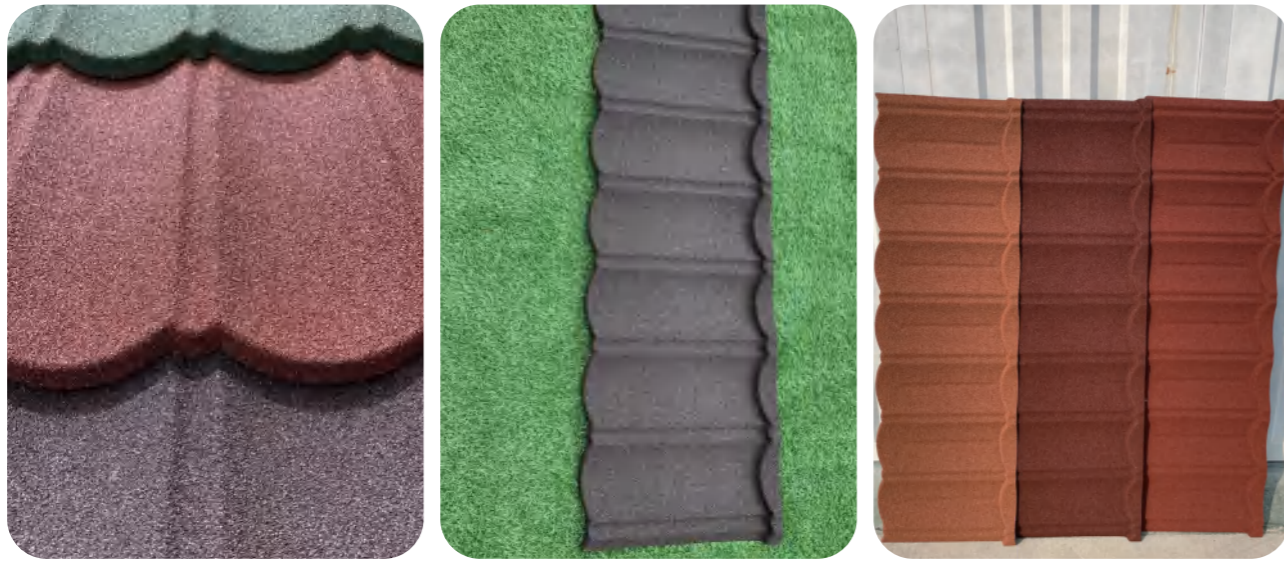
5th Generation: Color Steel Tiles
 Prone to rust, corrosion, thermal expansion and contraction. Weak in insulation, noise resistance, wind resistance. Easily deformed and unsafe. Poor durability



6th Generation: Stone-Coated Steel Tiles
 Excellent weather resistance, durability, aesthetic appearance, economical and lightweight. Effective in noise reduction, waterproofing, fire resistance, energy saving, thermal insulation, anti-algae, and long-lasting performance.

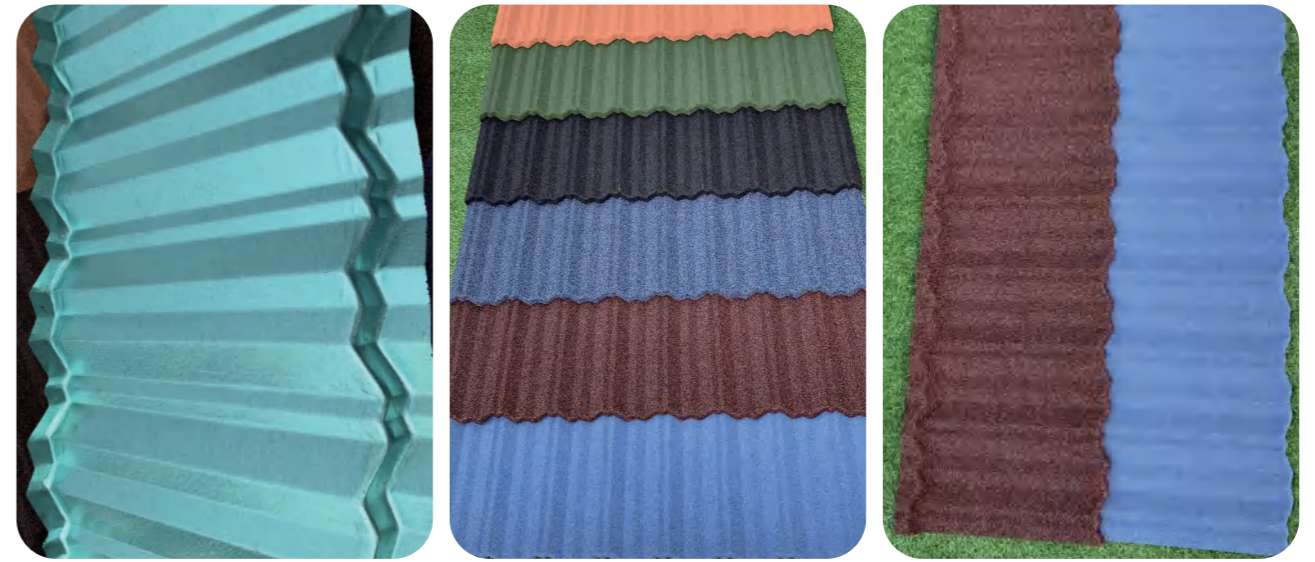


BOND



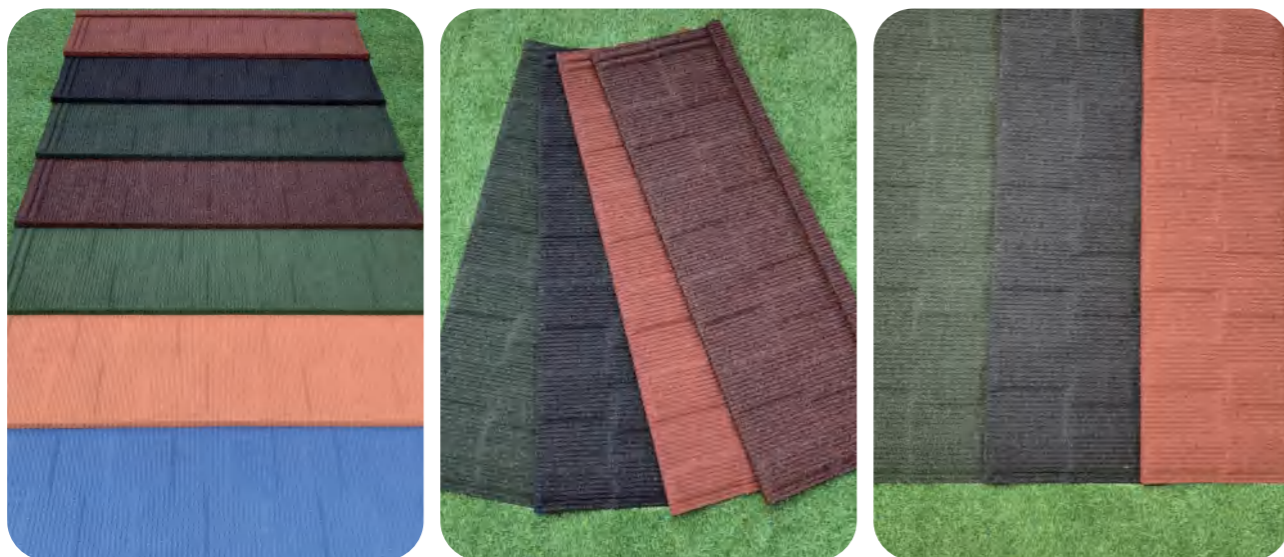
Tile Size	1340mm*420mm
Cover Size	1290mm*370mm
Weight	2.0kg-3.5kg
Color	Customized
Thickness	0.2mm-0.6mm

CLASSIC



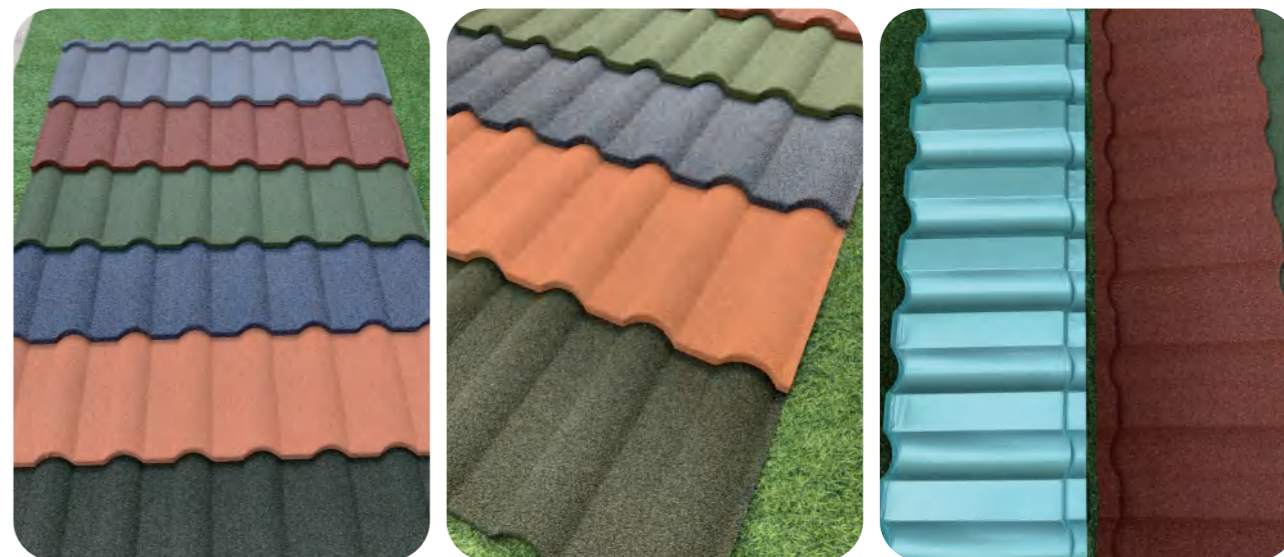
Tile Size	1340mm*420mm
Cover Size	1290mm*370mm
Weight	2.0kg-3.5kg
Color	Customized
Thickness	0.2mm-0.6mm

SHINGLES



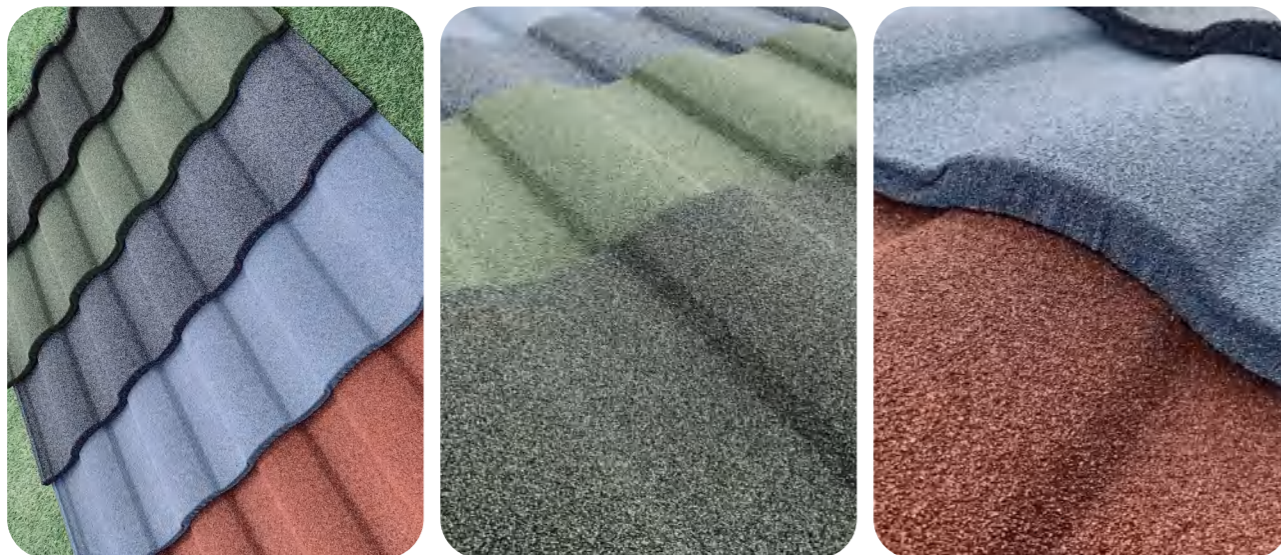
Tile Size	1340mm*420mm
Cover Size	1290mm*370mm
Weight	2.0kg-3.5kg
Color	Customized
Thickness	0.2mm-0.6mm

MILANO



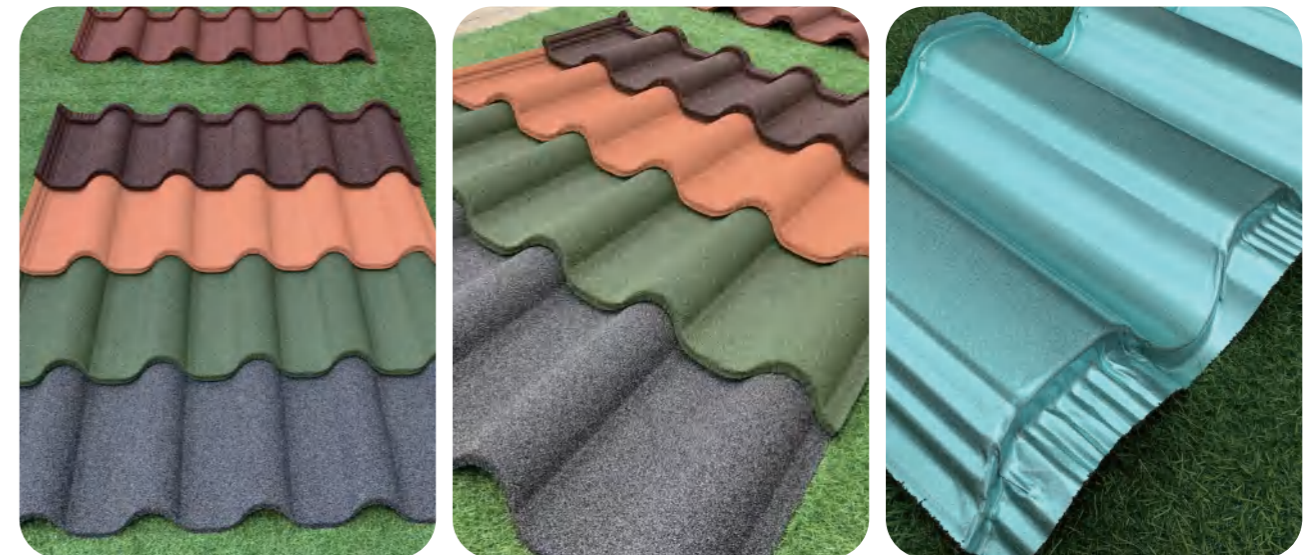
Tile Size	1340/1350mm*420mm
Cover Size	1290mm*370mm
Weight	2.0kg-3.5kg
Color	Customized
Thickness	0.2mm-0.6mm

ROMAN



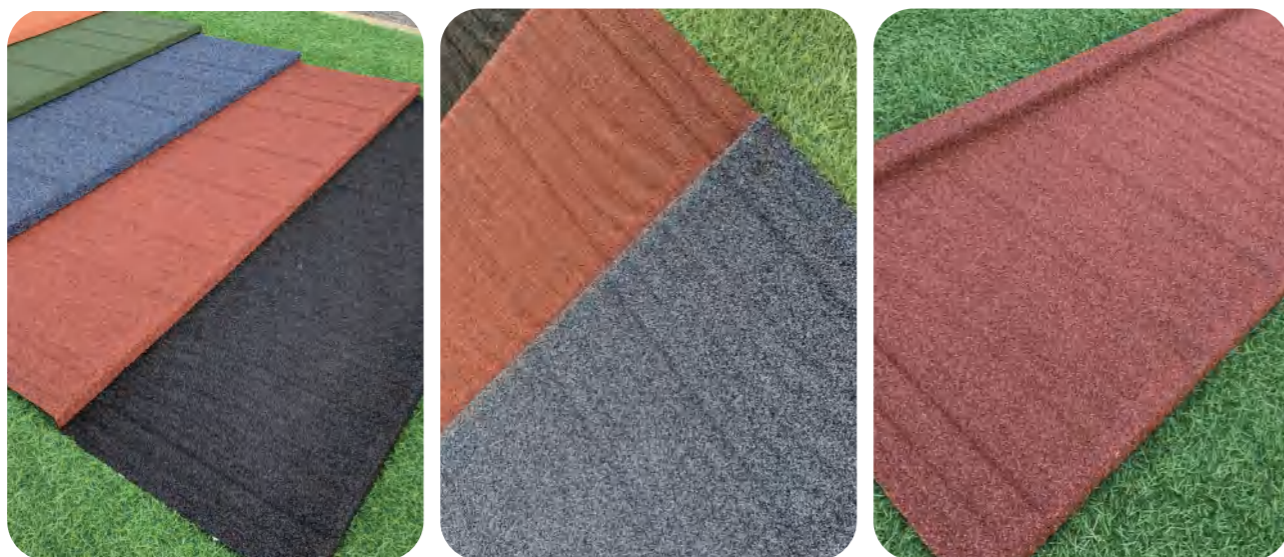
Tile Size	1300/1340mm*420mm
Cover Size	1220/1250mm*370mm
Weight	2.0kg-3.5kg
Color	Customized
Thickness	0.2mm-0.6mm

GROOVE



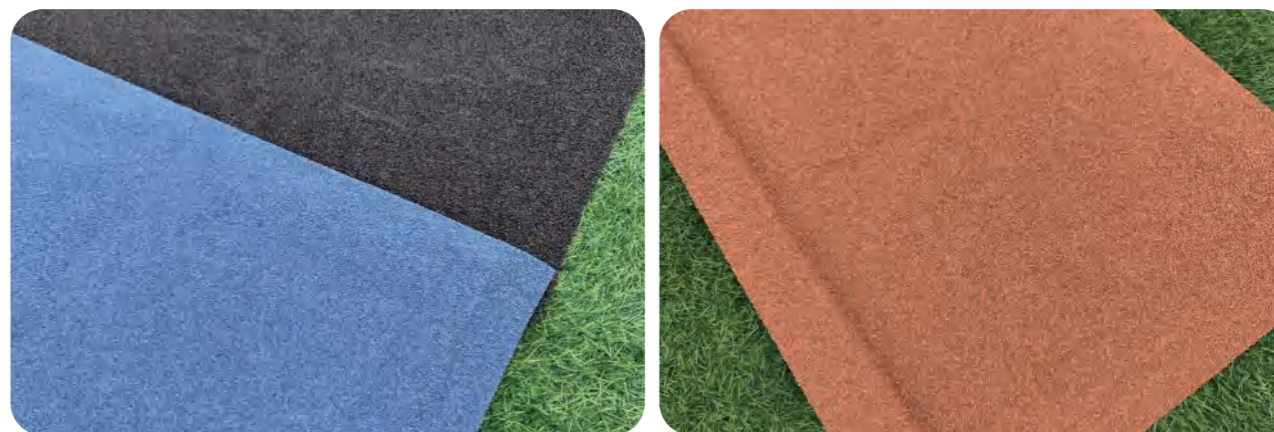
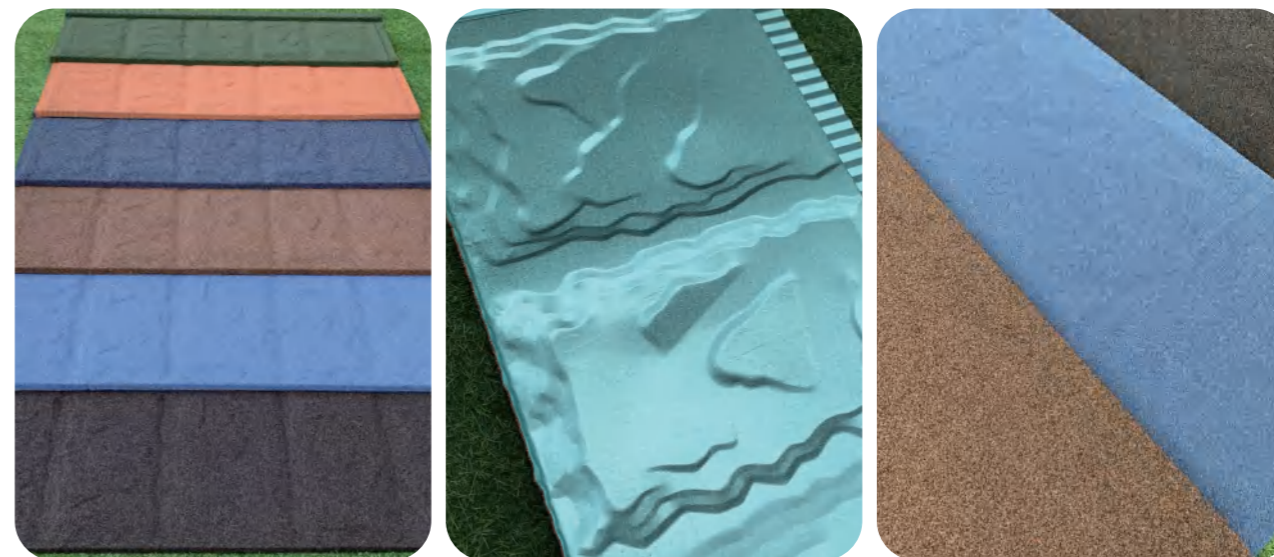
Tile Size	1290/1300mm*420mm
Cover Size	1250mm*370mm
Weight	2.0kg-3.5kg
Color	Customized
Thickness	0.2mm-0.6mm

MAKUTI



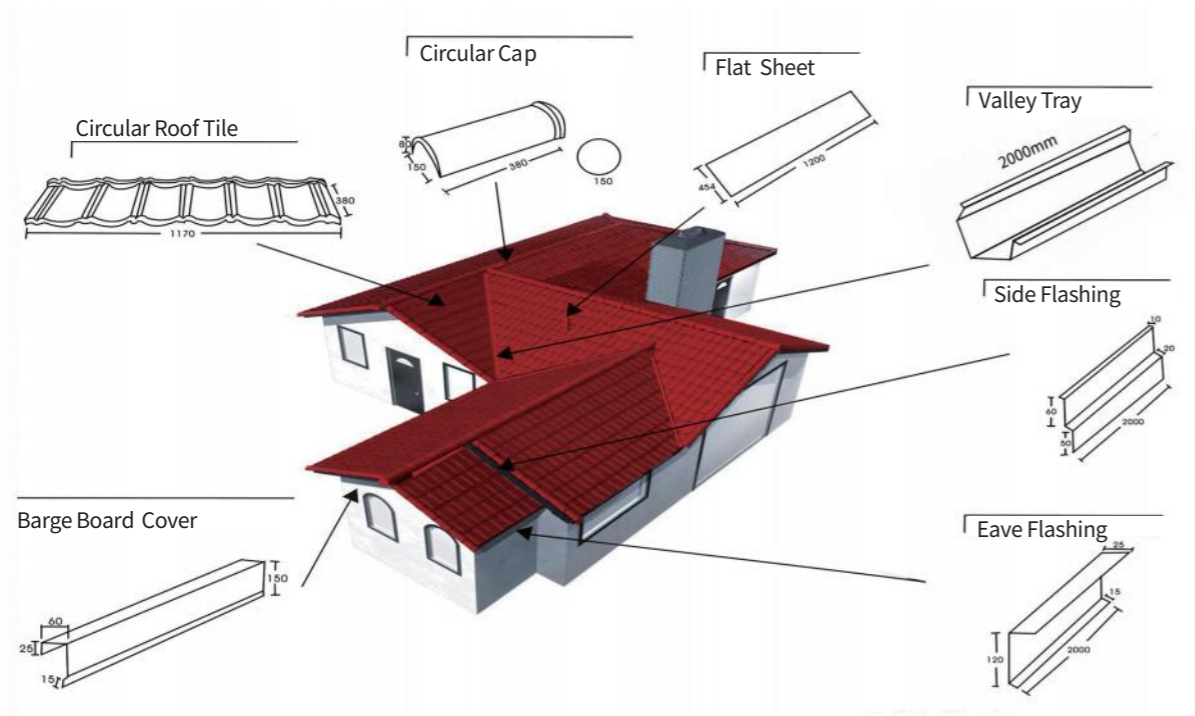
Tile Size	1340mm*420mm
Cover Size	1290mm*370mm
Weight	2.0kg-3.5kg
Color	Customized
Thickness	0.2mm-0.6mm

SLATE



Tile Size	1340mm*420mm
Cover Size	1290mm*370mm
Weight	2.0kg-3.5kg
Color	Customized
Thickness	0.2mm-0.6mm

Accessories



Color Chart



Accessory specifications

