Area Unit Converter (m², mm², ft², acre, hectare)

Convert an area between square metres, square millimetres and centimetres, square kilometres, hectares, square inches, feet and yards, and acres.

Method: Unit definitions per NIST SP 811 and the SI Brochure (exact where defined)

Input parameters

Unit system: SI

Parameter	Value	Unit
Area (choose its unit)	1.0000	m²

Calculated results

Parameter	Value	Unit
square metre	1.0000	m²
square millimetre	1,000,000	mm²
square centimetre	10,000	cm²
square kilometre	1.0000e-06	km²
hectare	1.0000e-04	ha
square inch	1,550.0	in²
square foot	10.764	ft²
square yard	1.1960	yd²
acre	2.4711e-04	acre

Notes for this case

- Areas convert with the square of the length factor.

Formula and method

$$x_{\text{unit}} = \frac{x_{SI}}{f_{\text{unit}}}$$

Variables

x	Area (choose its unit)	m²

Method and standards

Each unit's factor to the SI unit is held once in the unit registry.

Assumptions and limits

- Exact factors where the definition is exact.
- The acre is the international acre, 4 046.856 422 4 m²; the US survey acre of older US land records is 4 ppm larger.

References

- Unit definitions per NIST SP 811 and the SI Brochure (exact where defined)

Report details

Report reference	FCC-J84Y-1ZPP (the same inputs always give the same reference)
Generated	17 November 2026, 19:47 UTC
Calculator	Area Unit Converter (m², mm², ft², acre, hectare)
Method last reviewed	12 November 2026
Software release	FireCAD Calc, release of 17 November 2026
Release checks	2 reference cases of this calculator, computed independently, are checked on every release

Results are for engineering estimation. Verify critical designs against the referenced standards and your own data.

This calculator online

https://calc.firecad.com/general/unit-conversions/area-unit-converter

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.