Paint Quantity for Walls and Ceilings

Litres of paint and primer for an area from the spreading rate (coverage) and number of coats, with the cans needed, for walls, ceilings and steelwork.

Method: Area × coats / spreading rate (Common site practice (quantity estimating))

Input parameters

Unit system: SI

Parameter	Value	Unit
Area to paint	250.00	m²
Spreading rate per coat From the paint maker's data sheet for the surface.	10.000	m²/L
Number of finish coats	2.0000	
Primer spreading rate	12.000	m²/L
Primer coats	1.0000	
Can size	20.000	L
Loss allowance	10.000	%

Calculated results

Parameter	Value	Unit
Finish paint	55.000	L
Primer	22.917	L
Cans of finish paint (rounded up)	3.0000	

Formula and method

$$V = \frac{A\,n}{c}(1 + k_w)$$

Variables

A	Area to paint	m²
c	Spreading rate per coat (m² per litre)	-
n	Number of finish coats	-
c_p	Primer spreading rate (m² per litre)	-
n_p	Primer coats	-
V_c	Can size	m³
k_w	Loss allowance	-
V_f	Finish paint	m³
V_p	Primer	m³
N_c	Cans of finish paint (rounded up)	-

Method and standards

Area per litre.

Assumptions and limits

- Uniform surface.
- Spreading rates are entered in m² per litre in every unit system; convert ft²/US gal by × 0.0245.

References

• Area × coats / spreading rate (Common site practice (quantity estimating))

Report details

Report reference	FCC-CX2W-FMNN (the same inputs always give the same reference)
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Calculator	Paint Quantity for Walls and Ceilings
Method last reviewed	12 November 2026
Software release	FireCAD Calc, release of 17 November 2026
Release checks	3 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/civil/quantities/paint-quantity

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.