



# Foundry Compliance

Project: FC-SAMPLE-001 -- 3-bedroom detached new dwelling

Foundry Compliance uses AI-powered analysis to assess Part L and Future Homes Standard compliance. These findings provide valuable guidance for compliance planning and professional review.

## Part L 2021 (ADL1, Vol 1)

**NON-COMPLIANT**

Score: 80/100

## Future Homes Standard 2025

**REFERENCE ONLY**

FHS 2025 check included in full report.

Score = proportion of fabric and system criteria met (0-100). Part L 2021 does not prescribe a numerical pass mark -- compliance requires all applicable criteria to pass individually.

### Part L 2021 -- Failures

- External Wall: U-value 0.21 W/m2K exceeds 0.18 W/m2K limit (ADL1 2021 Table 4.1)

### Part L 2021 -- Warnings

- Windows & Glazing: centre-pane value (Ug) 1.20 W/m2K detected -- confirm whole-window Uw <= 1.40 W/m2K with manufacturer test certificate (ADL1 2021 Table 4.1)

### Part L 2021 -- Passed Checks

- Roof: 0.11 W/m2K (limit 0.15 W/m2K, ADL1 2021 Table 4.1)
- Ground Floor: 0.13 W/m2K (limit 0.25 W/m2K, ADL1 2021 Table 4.1)
- External Doors: 1.20 W/m2K (limit 1.40 W/m2K, ADL1 2021 Table 4.1)
- Glazing Ratio: 19% (limit 25%, ADL1 2021 Section 4.4)
- Thermal Bridging: y = 0.05 W/m2K (limit 0.08 W/m2K, ADL1 2021 Section 4.8)
- Air Permeability: 4.8 m3/h.m2 (limit 10.0, ADL1 2021 Section 4.6)
- Heating System: air source heat pump (preferred system, ADL1 2021 Section 4.12)
- Ventilation: MVHR (preferred system, ADL1 2021 Section 4.11)
- Lighting Efficacy: 95 lm/W (minimum 75 lm/W, ADL1 2021 Section 4.10)

### Parameters Table -- England Part L 2021 ADL Vol 1 (New Dwellings)

Parameter	Clause	Actual	Limit	Unit	Verdict
External Wall	ADL1 2021 Table 4.1	0.21	0.18	W/m2K	FAIL
<i>U-value 0.21 W/m2K exceeds 0.18 W/m2K limit</i>					
Roof	ADL1 2021 Table 4.1	0.11	0.15	W/m2K	PASS
Ground Floor	ADL1 2021 Table 4.1	0.13	0.25	W/m2K	PASS
Windows & Glazing	ADL1 2021 Table 4.1	1.2	1.4	W/m2K	WARN
<i>Centre-pane (Ug) detected -- confirm whole-window Uw with test certificate</i>					
External Doors	ADL1 2021 Table 4.1	1.2	1.4	W/m2K	PASS
Glazing Ratio	ADL1 2021 Section 4.4	19	25	%	PASS
Thermal Bridging (y)	ADL1 2021 Section 4.8	0.05	0.08	W/m2K	PASS



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Parameters Table (cont.)

Parameter	Clause	Actual	Limit	Unit	Verdict
Air Permeability	ADL1 2021 Section 4.6	4.8	10	m3/h.m2	PASS
Heating System	ADL1 2021 Section 4.12	--	--		PASS
<i>Air source heat pump -- preferred system type</i>					
Ventilation	ADL1 2021 Section 4.11	--	--		PASS
<i>MVHR -- preferred system type</i>					
Lighting Efficacy	ADL1 2021 Section 4.10	95	75	lm/W	PASS

*Actual = extracted value from drawings/specification. Limit = regulatory threshold. Direction: max = must not exceed; min = must meet or exceed; set = must be this type.*

## Compliance Score



Score reflects 1 failure(s) (-15 pts each) and 1 warning(s) (-5 pts each) against 11 evaluated criteria.

## Remediation -- Required Actions

- External Wall -- increase insulation to achieve U-value  $\leq 0.18$  W/m<sup>2</sup>K. Increase mineral wool or rigid insulation thickness by approximately 20-25 mm. Verify with as-built thermal calculations before Building Control sign-off.
- Windows & Glazing -- obtain manufacturer certified whole-window (U<sub>w</sub>) test data. If U<sub>w</sub> cannot be confirmed  $\leq 1.40$  W/m<sup>2</sup>K, specify a compliant glazing system before Building Regulations submission.

## Assessment Summary (AI-Generated)

This dwelling is non-compliant with Part L 2021 (England) due to the external wall U-value exceeding the ADL1 Vol 1 Table 4.1 limit of 0.18 W/m<sup>2</sup>K. All other fabric elements, systems, and services meet or exceed the required thresholds. The non-compliance is limited to a single element and is readily remedied by increasing wall insulation thickness. Once the external wall is upgraded and the window U<sub>w</sub> value is confirmed by test certificate, full compliance is expected.

*For professional reference. All compliance decisions and design responsibility remain with the qualified professional. This report does not constitute Building Regulations approval or an approved inspector's certificate. Foundry Compliance Ltd (Company No. 17192669) -- foundrycompliance.co.uk*