



# Energy Efficiency Best Practice in Housing

## Benefits of Best Practice: Windows



### The advantages are clear to see

Refurbishment and new build to Best Practice standards can yield economic, environmental and social benefits to your organisation, your tenants – and to the wider community. A crucial factor in achieving these standards is the type and condition of windows.

Poor quality single glazed windows can allow excessive heat loss through the glazing and through ill-fitting frames. The result – condensation and draughts, leading to uncomfortable homes that are expensive to heat. A single glazed window can allow fourteen times as much heat to escape as the same area of a modern, well-insulated wall.

When replacing windows or building new houses, Best Practice standards require high performance glazing to be used to achieve the following U-values:

	Energy Efficiency Best Practice in Housing Standard	Maximum window U-value (W/m <sup>2</sup> K)
<b>Refurbishment</b>	Best Practice Standard	2.0
	Good Practice Standard (GSI)	Elemental U-values of Building Regulations in the relevant part of the UK
<b>Newbuild</b>	Best Practice Standard (BSI)	1.8
	Advanced Standard (ASI)	1.5

Double glazing to this high specification can:

- increase security and improve sound insulation
- improve thermal comfort and reduce draughts
- minimise or eliminate the potential for condensation and mould growth
- reduce the management costs of dealing with complaints and carrying out repair work
- improve tenants' quality of life and help to tackle fuel poverty
- pre-empt future tightening of the Building Regulations
- improve the SAP (Standard Assessment Procedure) profile of your stock, helping to meet key Best Value performance measures
- add value to your stock
- reduce CO<sub>2</sub> emissions – helping to meet local HECA and national CO<sub>2</sub> reduction targets

- contribute towards achieving Housing Corporation Scheme Development Standards. These require evidence to show that new build and refurbished housing standards comprise a package of energy efficiency improvement measures compatible with the appropriate Best Practice requirements.

SAP rating	Typical semi-detached house	Typical annual heating and hot water costs
48	Basic gas central heating	£421
54	Windows double glazed and draught-stripped	£373
83	Fully insulated and double glazed	£204
101	Fully insulated, double glazed; heating to CHES HR4	£144

#### Window specification

Following building regulations changes, new high specification products are becoming increasingly available at more competitive prices. In such a market, specifiers are encouraged to obtain quotes for a range of specifications.

To help with the specification of energy efficient windows, the British Fenestration Rating Council is developing a simple window Energy Rating label using an A–G scale. This will allow for quick and effective comparisons for the performance of the whole window.

#### What is current Best Practice and where can I find it?

Now that you have heard the economic, social and environmental benefits, here's how to find out more about Best Practice. The following publications are available from the Energy Efficiency Best Practice in Housing helpline on 0845 120 7799 or by visiting the website at [www.est.org.uk/bestpractice](http://www.est.org.uk/bestpractice)

Energy Efficiency in New Housing – Summary Specifications for England, Wales and Scotland (CE12)

Energy Efficiency Standards – For New and Existing Dwellings (GIL72)

Energy Efficient Refurbishment of Existing Housing (GPG155)

Refurbishment site guidance for solid-walled houses – windows and doors (GPG295)

#### Energy Efficiency Best Practice in Housing

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