

SAP Calculations

U value Data from CIBS (Chartered institute of Building Services engineers Guide Part 3 Thermal Properties of Building structures)

A) SAP requirements

Area	M2	Z U value Watts/M2 °C	Y Total heat loss watts/°C (Z x Y)
For Proposed Conservatory			
Triangular section above windows	1.8	0.3	0.5
dwarf wall	8	0.3	2.4
floor	21	0.22	4.6
side glazing	18	1.6	28.8
roof glazing	23	0.17	<u>3.9</u>
Total SAPP heat loss for whole conservatory		(A)	40.3 watts/ °C

B) Actual Forcast Heat loss Proposed conservatory

Triangular section above windows	1.8	0.24	0.432	100mm cellotex
dwarf wall	8	0.3	2.4	as specified by Building regs
floor	21	0.22	4.62	as specified by Building rega
side glazing	18	1.8	32.4	To take into account glazing and frames
roof glazing	23	1.8	<u>41.4</u>	Low E Argon filled units U -value of the units 1.1
			81.25	
less current				
house glazed door	3.6	2.8	-10.1	
House wall	14.6	2.2	<u>-32.1</u>	
Total net current heat loss whole conservatory		(B)	39.1 watts/ °C	

C) Additional insulation work to be performed	U value before	U value after	saving	total saving watts/°C	Additional	
Loft insulation including above extension	58	0.6	0.24	0.36	20.88	Additional 130mm of Fibre glass

Total saving from additional works **(C)** 20.88 watts/ °C

Total net heat loss for whole conservatory after additional measures **B - C** 18.2 watts/°C

SAP allowable heat loss for the whole conservatory **A** 40.3 watts/°C