

P.02 RECORD FOR ENERGY LABEL OF BUILDING ENVELOPE

Record for Energy Label of Building Envelope

Identification data¹

Type of building (e.g. family house, hospital, hotel...) Address (town or village, street, number, ZIP code) Cadastral district and parcel index Operator or future operator	LEAVE BLANK!!!
Owner or association of owners or developer Address Telephone/e-mail	LEAVE BLANK!!!

Building characteristics

Building volume <i>V</i> - external volume of building heated zone, does not include recessed balconies, cornices, parapets and foundations Total surface <i>A_I</i> of building envelope – sum of external surfaces cooled by construction bordering the building volume Total floorage: Volume factor of the building shape <i>A / V</i>m ³ m ² m ² m ² /m ³
Prevailing internal temperature in the heating period θ_{im} External calculation temperature in winter θ_e °C °C

Characteristics of energy significant data of cooled constructions

Cooled construction	Area [m ²]	Overall coefficient of heat transmission U_i [W/(m ² ·K)]	Required (recommended) coefficient of heat transmission $U_{i,rq}$ ($U_{i,rc}$) [W/(m ² ·K)]	Coefficient of thermal reduction b_i [-]	Nominal loss of construction by transmission of heat $H_{Ti} = A_i \cdot U_i \cdot b_i$ ($\sum \psi_k \cdot l_k + \sum \chi_j$) (W/kW)
Windows and glazed walls					
External wall 1					
External wall 2					
Floor below attic with unsealed roofing					
Floor flanking with soil					
Entrance wooden door					
Thermal bonds between constructions	$\sum A_i$ [m ²]	$\sum \psi_k \cdot l_k + \sum \chi_j / A_i$ [W/(m ² ·K)]	-	b_i [-]	$\sum \psi_k \cdot l_k + \sum \chi_j$ (W/kW)
Summary effect of thermal bonds				1,0	
Total					

Constructions meet requirements for coefficients of heat transmissions according to this standard.

NOTE: Assessment of thermal bonds effects by means of the relation (+ 0.10·A) is approximate, very safe estimate of common thermal bonds between constructions. In this case it increases the nominal loss by transmission of heat H_T and average coefficient of heat transmission U_{em} by 23%. The lower coefficients of heat transmissions of individual constructions, the higher relative surcharge caused by certain effect of thermal bonds. Consistent optimization of thermal bonds between constructions may reduce their effect under (+ 0.02·A). In this case thermal bonds increase the nominal loss

¹ Please leave identification data blank

by transmission of heat H_T and average coefficient of heat transmission U_{em} by less than 6 % and heat transmission will reduce by more than 18%.

Determination of heat transmission of building envelope

Nominal loss by heat transmission H_T	W/K	
Average coefficient of heat transmission $U_{em} = H_T / A$	W/(m²·K)	
Recommended coefficient of heat transmission $U_{em,rc}$	W/(m²·K)	
Recommended coefficient of heat transmission $U_{em,rq}$	W/(m²·K)	
Average coefficient of heat transmission of building stock $U_{em,s}$	W/(m²·K)	

Requirement for heat transmission of building envelope is met.

Classification classes of heat transmission of building envelope of the assessed building

Boundaries of classification classes	Classification index C_I for boundaries of classification classes	U_{em} [W/(m ² ·K)] for boundaries of classification classes	
		Generally	For the assessed building
A – B	0.3	$0.3 \cdot U_{em,rq}$	
B – C	0.6	$0.6 \cdot U_{em,rq}$	
(C1 – C2)	(0.75)	$(0.75 \cdot U_{em,rq})$	
C - D	1.0	$U_{em,rq}$	
D - E	1.5	$0.5 \cdot (U_{em,rq} + U_{em,s})$	
E - F	2.0	$U_{em,s} = U_{em,rq} + 0.6$	
F - G	2.5	$1.5 \cdot U_{em,s}$	

Classification:

Issuance date of Energy Label of Building Envelope: *Day /month / year*

Elaborator of Energy Label of Building Envelope: **LEAVE BLANK!!!**

Registration number:**LEAVE BLANK!!!**

Elaborated by: **LEAVE BLANK!!!**
LEAVE BLANK!!!

Signature:

This Record and Energy Label of Building Envelope corresponds with Directive of European Parliament and Council no. 2002/91/EC and ČSN EN 15217. It was processed in accordance with the Czech standard 73 0540-2 and according to design documents submitted by the Client.

