

TABLE 8. COEFFICIENTS OF TRANSMISSION (U) OF BRICK AND STONE VENEER MASONRY WALLS

Coefficients are expressed in Btu per (hour) (square foot) (Fahrenheit degree difference in temperature between the air on the two sides), and are based on an outside wind velocity of 15 mph.

TYPICAL CONSTRUCTION	FACING	BACKING	INTERIOR FINISH (PLUS INSULATION WHEN INDICATED)									WALL NUMBER
			Plain Walls—no Interior Finish	Plaster (½ in.) on Walls	Metal Lath and Plaster—Furred*	Gypsum Board (½ in.) Decorated—Furred*	Gypsum Lath (½ in.) Plastered—Furred*	Insulating Board (½ in.) Plain or Decorated—Furred*	Insulating Board Lath (½ in.) Plastered—Furred*	Insulating Board Lath (1 in.) Plastered—Furred*	Gypsum Lath Plastered—Furred Plus 1 in. Blanket Insulation—Furred*	
			A	B	C	D	E	F	G	H	I	
		8 in. Hollow Tile ^a	0.35	0.34	0.25	0.25	0.24	0.19	0.18	0.14	0.13	88
		8 in. Hollow Tile ^a	0.34	0.32	0.25	0.24	0.23	0.19	0.18	0.14	0.13	89
	4 in. Brick Veneer ^a	8 in. Concrete	0.59	0.54	0.35	0.35	0.33	0.24	0.23	0.17	0.15	90
		8 in. Concrete	0.54	0.50	0.33	0.33	0.31	0.23	0.23	0.17	0.15	91
		8 in. Concrete Blocks ^a (Gravel Aggregate)	0.44	0.41	0.29	0.29	0.28	0.21	0.21	0.16	0.14	92
		8 in. Concrete Blocks ^a (Cinder Aggregate)	0.34	0.33	0.25	0.24	0.24	0.19	0.18	0.14	0.13	93
		8 in. Concrete Blocks ^a (Light Weight Aggregate) ^a	0.31	0.29	0.23	0.23	0.22	0.18	0.17	0.14	0.12	94
		6 in. Hollow Tile ^a	0.37	0.35	0.26	0.26	0.25	0.19	0.19	0.15	0.13	95
		8 in. Hollow Tile ^a	0.36	0.34	0.25	0.25	0.24	0.19	0.19	0.14	0.13	96
	4 in. Cut Stone Veneer ^a	8 in. Concrete	0.63	0.58	0.37	0.36	0.34	0.25	0.24	0.18	0.15	97
		8 in. Concrete	0.67	0.63	0.35	0.34	0.33	0.24	0.23	0.17	0.15	98
		8 in. Concrete Blocks ^a (Gravel Aggregate)	0.47	0.44	0.30	0.30	0.29	0.22	0.21	0.16	0.14	99
		8 in. Concrete Blocks ^a (Cinder Aggregate)	0.36	0.34	0.25	0.25	0.24	0.19	0.19	0.15	0.13	100
		8 in. Concrete Blocks ^a (Light Weight Aggregate) ^a	0.32	0.30	0.23	0.23	0.22	0.18	0.17	0.14	0.12	101

^aCalculations based on ½ in. cement mortar between backing and facing except in the case of the concrete backing which is assumed to be poured in place.

^bThe hollow tile figures are based on two air cells in the direction of heat flow.

^cHollow concrete blocks.

^dExpanded slag, burned clay or pumice.

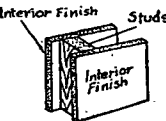
^eThickness of plaster assumed ½ in.

^fThickness of plaster assumed ½ in.

^gBased on 2 in. furring strips; one air space.

TABLE 9. COEFFICIENTS OF TRANSMISSION (U) OF FRAME PARTITIONS OR INTERIOR WALLS^a

Coefficients are expressed in Btu per (hour) (square foot) (Fahrenheit degree difference in temperature between the air on the two sides), and are based on still air (no wind) conditions on both sides.

INTERIOR FINISH		SINGLE PARTITION (Finish on one side only of studs)	DOUBLE PARTITION (Finish on both sides of studs)		PARTITION NUMBER
			No INSULATION BETWEEN STUDS	1 IN. BLANKET ^d BETWEEN STUDS. ONE AIR SPACE.	
		A	B	C	
Metal Lath and Plaster ^a		0.69	0.39	0.16	1
Gypsum Board (3/4 in.) Decorated		0.67	0.37	0.16	2
Wood Lath and Plaster		0.62	0.34	0.15	3
Gypsum Lath (3/4 in.) Plastered ^c		0.61	0.34	0.15	4
Plywood (3/4 in.) Plain or Decorated		0.59	0.33	0.15	5
Insulating Board (3/4 in.) Plain or Decorated		0.36	0.19	0.11	6
Insulating Board Lath (3/4 in.) Plastered ^c		0.35	0.18	0.11	7
Insulating Board Lath (1 in.) Plastered ^c		0.23	0.12	0.082	8

^aCoefficients not weighted; effect of studding neglected.

^bPlaster assumed ½ in. thick.

^cPlaster assumed ½ in. thick.

^dFor partitions with other insulations between studs refer to Table 6, using values in Column B of above table in left hand column of Table 6. Example: What is the coefficient of transmission (U) of a partition consisting of gypsum lath and plaster on both sides of studs with 2 in. blanket between studs? Solution: According to above table, this partition with no insulation between studs (No. 4B) has a coefficient of 0.34. Referring to Table 6, it will be found that a wall having a coefficient of 0.34 with no insulation between studs, will have a coefficient of 0.10 with 2 in. of blanket insulation between studs (No. 56B).

TABLE 10. COEFFICIENTS OF TRANSMISSION (U) OF MASONRY PARTITIONS

Coefficients are expressed in Btu per (hour) (square foot) (Fahrenheit degree difference in temperature between the air on the two sides), and are based on still air (no wind) conditions on both sides.

TYPE OF PARTITION	THICKNESS OF MASONRY (INCHES)	TYPE OF FINISH			PARTITION NUMBER
		No FINISH (Plain walls)	PLASTER ONE SIDE	PLASTER BOTH SIDES ^a	
		A	B	C	
HOLLOW CLAY TILE	3	0.50	0.47	0.43	9
	4	0.45	0.42	0.40	10
HOLLOW GYPSUM TILE	3	0.35	0.33	0.32	11
	4	0.29	0.28	0.27	12
HOLLOW CONCRETE TILE on Blocks	3	0.50	0.47	0.43	13
	4	0.45	0.42	0.40	14
	3	0.41	0.39	0.37	15
	4	0.35	0.34	0.32	16
COMMON BRICK	4	0.50	0.46	0.43	17

^a2 in. solid plaster partition, $U = 0.53$.

^bExpanded slag, burned clay or pumice.