

COMMERCIAL ENERGY CHART COMPARISON

CLIMATE ZONE 5B	2009 COMMERCIAL	2009 COMMERCIAL R OCCUPANCIES	2018 COMMERCIAL	2018 COMMERCIAL R OCCUPANCIES
ROOFS				
INSULATION ENTIRELY ABOVE DECK	R-20 ci	R-20 ci	R-30 ci	R-30 ci
METAL BUILDINGS W/ R-5 THERMAL BLOCKS	R-13 + R-13	R-19	R-19 + R-11 LS	R-19 + R-11 LS
ATTIC AND OTHER	R-38	R-38	R-38	R-49
WALLS, ABOVE GRADE				
MASS	R-11.4 ci	R-13.3 ci	R-11.4 ci	R-13.3 ci
METAL BUILDING	R-13 + R-5.6 ci	R-13 + R-5.6 ci	R-13 + R-13 ci	R-13 + R-13 ci
METAL FRAMED	R-13 + R-7.5 ci	R-13 + R-7.5 ci	R-13 + R-7.5 ci	R-13 + R-7.5 ci
WOOD FRAMED AND OTHER	R-13 + R-3.8 ci	R-13 + R-3.8 ci	R-13 + R-3.8 ci OR R-20	R-13 + R-7.5 ci OR R-20 + R-3.8 ci
WALLS, BELOW GRADE				
BELOW GRADE WALLS IF WITH HEATED FLOOR USE R-15	R-7.5 ci	R-7.5 ci	R-7.5 ci	R-7.5 ci
FLOORS				
MASS	R-10 ci	R-12.5 ci	R-10 ci	R-12.5 ci
JOIST FRAMING WOOD OR METAL	R-30	R-30	R-30	R-30
SLAB-ON-GRADE FLOORS				
UNHEATED SLABS	NR	R-10/24" BELOW	R-10/24" BELOW	R-10/24" BELOW
HEATED SLABS	R-15/24" BELOW	R-15/24" BELOW	R-15/36" BELOW + R-5 FULL SLAB	R-15/36" BELOW + R-5 FULL SLAB
OPAQUE DOORS				
SWINGING	U-0.70	U-0.70	U-0.37	U-0.37
RULL-UP OR SLIDING	U-0.50	U-0.50	R-4.75	R-4.75
ci = CONTINUOUS INSULATION				
24" BELOW = 24" FROM TOP OF SLAB DOWN, MINIMUM				
LS = LINER SYSTEM, 1 LAYER OF CONTINUOUS VAPOR BARRIER BELOW FRAMING MEMBERS 1 LAYER OF UNCOMPRESSED INSULATION AND 1 LAYER OF INSULATION COMPRESSED OVER FRAMING MEMBERS				
2018 HEATED SLABS, R-15/36" BELOW EXTENDS VERTICALLY ONLY, R-5 IS HORIZONTAL, BELOW THE SLAB ONLY				