

A Closer Look Inspection Service

2009 IECC Commercial DFW area handout

101.4 Does the 2009 IECC apply?

101.4.2 Historic Exemption

101.4.3 Applicable Property **New Construction - Remodel - Finishout - Addition**

101.4.4 **A Change in Occupancy**

101.4.5 **A Change in space conditioning**

502.1 Building Envelope Insulation Inspections

502.2.1

Wood Residential

Metal Res

Metal & non Res

Roof Deck Insulation

R - 20 continuous

R -19

R 13 + R 13 with blocks

Ceiling Insulation

R - 38

No drop ceiling insulation allowed

502.2.3

Above grade Wall Insulation R - 13
R -19

R -13+ R7.5 ci or R -19

R 13 + R 3.8 ci or

502.2.6

Floor Insulation

Group Res R - 30

Other Groups

R - 19

502.2.7

Opaque doors < 50% glass

U - .70

Roll up doors

U - 1.45

502.3 Fenestration Inspections

Framing materials

U - .65

Entrance door

U - .90

Storefront Glass

U - .60 Impact resistant U - .75

Projection Factor = Horizontal awning distance / Vertical glass height

Results

<.25

.25 ≤ .50

≥ .50

SHGC

≤ .25

≤ .33

≤ .40

Skylight 3% max

U - .65

SHGC .35

502.4.3 Air Leakage Inspections

Wall top plate penetrations sealed on all walls

Seal Bottom plate to foundation / vertical Wall intersections on exterior walls

Seal around Windows & Doors & all Building envelope penetrations

Seal or gasket Doors / Windows / Fixtures / Junction boxes for outlets & switches

502.4.6.1 Conditioned loading dock weatherseals

502.4.7 Vestibule required for entry openings to > 3000 sqft area

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503.2 Mechanical Systems Inspections

HVAC Systems

- 503.2.1 Manual J provided according to ASHRAE/ACCA standard 183
- 503.2.3 Tables for HVAC system efficiency requirements
- 503.2.4.3 Programmable Setback thermostat
- 503.2.5 Ventilation Requirements per Chapter 4 of IMC
- 503.2.7 HVAC Ducts R – 5 Unconditioned areas R – 8 Exterior
- 503.2.7.1.1 Duct sealed with mastic
- 503.2.8 Refrigerant line insulation 1.5 inch

Water Heating Systems

- 504.2 Performance efficiency Electric .93 - .97 EF Gas .67 - 80% E
- 504.4 360 degree Heat trap installed or 1" insulation for 1st 8 feet
- 504.5 Pipe Insulation 1" or R -2 Circulating systems - All Hot & Return pipe
- 504.7 Pool requirements

Interior Lighting

- 505.5.2 Interior lighting density tables
- 505.2.1 Manual controls each room
- 505.2.2.1 50 % Light reduction controls
- 505.2.2.2 Automatic interior light shutoff controls for building > 5,000 sqft
Scheduled time of Day (< 25,000 sqft) /Occupant Sensor / Other sensor
- 505.2.2.2.1 Occupant override required (2 hrs max) for areas < 5000 sqft
- 505.2.2.2.2 Automatic Holiday scheduling
- 505.2.2.3 Daylight zone exemption

Exterior Lighting

- 505.2.4 Exterior lighting controls photo sensor and time switch or astrological time switch required
- 505.6.1 Luminaries > 100 W required to have minimum efficacy of 60 lumens / W