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SYRACUSE GLASS COMPANY

www.syracuseglass.com

Our Commitment Shines Through

Flat Glass Products - Tempering
Insulating - Beveling - Edgework
All-Glass Doors - Shower Enclosures
StoreFront and Curtain Wall Systems
Aluminum Entrances

January 13, 2015

Dear Valued Customer:

The New York State Building Standards and Codes office has announced a change to the State Energy Code which applies to commercial building construction and renovation throughout New York State. The new code, the Energy Conservation Construction Code of NYS 2014 replaces the ECCCNYS 2010 version, EFFECTIVE JANUARY 1, 2015.

The code establishes minimum combined glass and framing system ("whole system") U-factors and SHGC value requirements using either a "prescriptive method" based on the IECC 2012 version or a "performance method" based on ASHRAE 90.1 – 2010 version.

I've attach a summary of the most important provisions on the prescriptive method. Compliance with the code can be documented with a certification form through the AAMA 507 Standard. Enforcement is handled by the local code officials who may look for compliance certificates during their permit process.

If you're installing glass and aluminum framing systems in commercial buildings, particularly if you're selecting and combining the materials rather than following architectural specifications, I urge you to be mindful of this significant change in minimum requirements of energy performance, and the potential requirement of a building owner to document energy performance to a code official.

For example, Downstate and in the Upstate urban counties, compliance requires a soft coat low-e argon filled IG unit in a thermally broken storefront system. In the more rural "Climate Zone 6" counties, a "triple silver" soft coat low-e argon filled unit is required. Only thermal doors meet the code anywhere in the State.

I have attached: 1) A summary of the new code, 2) Center of Glass U-Factor and SHGC requirements for several Tubelite framing systems, 3) glass performance information, and 4) a sample certification of compliance.

Compliance certificates and lab simulations for Tubelite framing systems, as well as a link to the code division announcement and the actual code language are all available at www.syracuseglass.com. If you'd like more information or staff training, contact your Syracuse Glass sales representative or a member of our glass or aluminum estimating teams.

Syracuse Glass and Tubelite have made the investments to provide you the very best in energy efficient glass and glazing products; "Team Syracuse Glass" is ready to help if you need it.

Sincerely,

John Dwyer

President

SYRACUSE GLASS COMPANY

ENERGY CONSERVATION CONSTRUCTION CODE OF NYS 2014

Effective Date: January 1, 2015

Contents: Performance Method: ASHRAE 90.1 -2010
Prescriptive Method: IECC 2012
Compliance: AAMA 507 Certificate of Compliance
Enforcement: Local Code Officials through Permit Process

Minimum "WHOLE SYSTEM" Glass and Glazing U -Factor Requirements:

CLIMATE ZONES	4, 5	6
Fixed Fenestration	.38	.36
Operable Fenestration	.45	.43
Entrance Doors	.77	.77
Skylights	.50	.50

Minimum "WHOLE SYSTEM" SHGC Requirements: .40 All NYS Climate Zones subject to:

	ELEVATION ORIENTATION	
	Within 45° Due North	Other Elevations
PF<.20	.40	.40
02<= PF <= .50	.44	.48
PF>= .50	.48	.64

PF = Projection Factor, the horizontal distance from the outside glass surface to the end of the shading device (i.e., awning, sunshade) divided by the vertical distance from the top to the bottom of the glazing.

Zone 4 – Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, Westchester

Zone 5 – Albany, Cayuga, Chautauqua, Chemung, Columbia, Cortland, Dutchess, Erie, Genesee, Greene, Livingston, Monroe, Niagara, Onondaga, Ontario, Orange, Orleans, Oswego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Seneca, Tioga, Washington, Wayne, Yates

Zone 6 – Allegany, Broome, Cattaraugus, Chenango, Clinton, Delaware, Essex, Franklin, Fulton, Hamilton, Herkimer, Jefferson, Lewis, Madison, Montgomery, Oneida, Otsego, Schoharie, Schuyler, St. Lawrence, Steuben, Sullivan, Tompkins, Ulster, Warren, Wyoming

Maximum Glazing: 30% of Wall Area, or 40% if Glass VLT > (1.1 x SHGC) and Daylighting Requirements in C402.3.1.1 are Achieved

Other Code Provisions: Maximum Air Infiltration

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CENTER OF GLASS U-FACTOR & SHGC REQUIRMENTS FOR ECCCNYS 2014 FOR SELECT TUBELITE FRAMING SYSTEMS

	U- FACTOR		SHGC
	CLIMATE ZONE 4,5	CLIMATE ZONE 6	ALL ZONES
FIXED - STOREFRONT	(.38 REQ.)	(.36 REQ.)	(.40 REQ.)
T 14000	.26	.24	.43
T 14000 Out	.28	.26	.43
T 14000 In	.31	.28	.43
TU 24000	.30	.28	.44
CURTAINWALL			
300 ES	.31	.28	.43
See website for 200 and 400 Series Curtain Wall Options.			
DOORS – THERMAL ONLY!	(.77 REQ.)	(.77 REQ.)	(.40 REQ.)
	.48	.48	.55
Transom	.22	.19	.44
OPERABLE –	(.45 REQ.)	(.43 REQ.)	.40 REQ.)
Awng, Case., Hop.,	.22	.19	.55

Numbers in parentheses are “whole system” performance requirements from the Code based on glass and framing performance. Other numbers reflect required center of glass performance.

NOTE: Independent Lab Tests available at www.syracuseglass.com or www.tubeliteinc.com.

Simulation U-factors are achieved using Insulating Units with Warm Edge Spacers.

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CENTER OF GLASS U-FACTORS & SHGC VALUES

COG U-FACTOR		SHGC
	HARD COAT LOW-E (2 or 3) - ARGON	
.29	Pilkington Energy Advantage (2) Argon	.63
	Bronze Argon Pilkington Energy Advantage (3)	.45
	Gray Argon Pilkington Energy Advantage (3)	.40
	Green Argon Pilkington Energy Advantage (3)	.44
	Arctic Blue Argon Pilkington Energy Advantage (3)	.34
	Evergreen Argon Pilkington Energy Advantage (3)	.35
	SOFT COAT LOW-E (2 or 3) - AIR	
.29	Guardian SN 68 (2) Air	.38
.28	Guardian SNX 62/27 (2) Air	.27
	SOFT COAT LOW-E (2 or 3) - ARGON	
.25	Guardian SN 68 (2) Argon	.37
	Bronze Argon Guardian SN68 (3)	.31
	Gray Argon Guardian SN68 (3)	.30
	Green Argon Guardian SN68 (3)	.35
.24	Guardian SNX 62/27 (2) Argon	.27
	Bronze Argon Guardian SNX 62/27 (3)	.26
	Gray Argon Guardian SNX 62/27 (3)	.23
	Green Argon Guardian SNX 62/27 (3)	.32
	SOFT COAT LOW-E (2) - AIR - HARD COAT LOW-E (4)	
.24	Guardian SN 68 (2) Air Guardian IS20 (4)	.36
	Bronze Eclipse Advantage (2) Argon Pilkington Energy Advantage (4)	.34
.23	Guardian SN 68 (2) Air Pilkington Energy Advantage (4)	.36
	SOFTCOAT LOW-E (2) - ARGON - HARD COAT LOW-E (4)	
.20	Guardian SN 68 (2) Argon Guardian IS20 (4)	.36
	Guardian SN 68 (2) Argon Pilkington Energy Advantage (4)	.35

1/9/2015

EXAMPLE

11.0 CERTIFICATE OF COMPLIANCE

OVERALL RATING	
U-Factor: (Btu/h•ft²•°F)	.37
SHGC:	.35

Directions: Fill out form completely. Determine the Overall Rating for this project by using the C.O.G. U-Factor and C.O.G. SHGC from Table 1 and looking up the overall rating from Table 2. Indicate the Overall Rating in the space above. Linear interpolation is permitted.

Certificate Authorization

Name: Joe Glazier

Company: Energy Saving Glazing, Inc

Signature: Joe Glazier

Date: 1/1/15

CERTIFIES THAT THE MATERIALS LISTED ON THIS CERTIFICATE WERE INSTALLED ON THE PROJECT IDENTIFIED BELOW.

PROJECT INFORMATION: Chase Manhatlan Bank

Street Address: 101 Salina St

City: Syracuse State: NY Zip: 13206

GLAZING CONTRACTOR / INSTALLER: Energy Saving Glazing Inc

Contact Person: Joe Glazier

Street Address: 200 Main St

Phone Number: 315 555-5555

City: Syracuse State: NY Zip: 13206

TABLE 1 – GLAZING

GLAZING MATERIAL SUPPLIER: SYRACUSE GLASS COMPANY, INC.

Contact Person: John Dwyer

Street Address: 1 General Motors Drive

Phone Number: 315-437-9971

City: Syracuse State: NY Zip: 13206

Glass and Spacer Type: 1" Insulating SN-68 LowE Argon Chromatech Ultra

Center-of-glass (C.O.G.) U-factor: .25 Btu/h•ft²•°F

Center-of-glass (C.O.G.) SHGC: .38

TABLE 2 – FRAMING

FRAMING MATERIAL SUPPLIER: Tubelite Inc./Syracuse Glass

Contact Person: Mike York

Street Address: 4878 Mackinaw Trail

Phone Number: 315-437-9971

City: Reed City State: MI Zip: 49677

U-factor Matrix (Btu/h•ft²•°F)		SHGC Matrix	
C.O.G. U-factor	OVERALL U-factor	C.O.G. SHGC	OVERALL SHGC
0.48	.56	0.90	.83
0.46	.54	0.85	.79
0.44	.53	0.80	.74
0.42	.51	0.75	.69
0.40	.49	0.70	.65
0.38	.48	0.65	.60
0.36	.46	0.60	.56
0.34	.44	0.55	.51
0.32	.43	0.50	.46
0.30	.41	0.45	.42
0.28 (25)	.39 (37)	0.40 (38)	.37 (35)
0.26	.38	0.35	.33
0.24	.36	0.30	.28
0.22	.34	0.25	.24
0.20	.33	0.20	.19

Product Line: **T 14000 Storefront**

The overall ratings for U-factor and SHGC are based on a size of

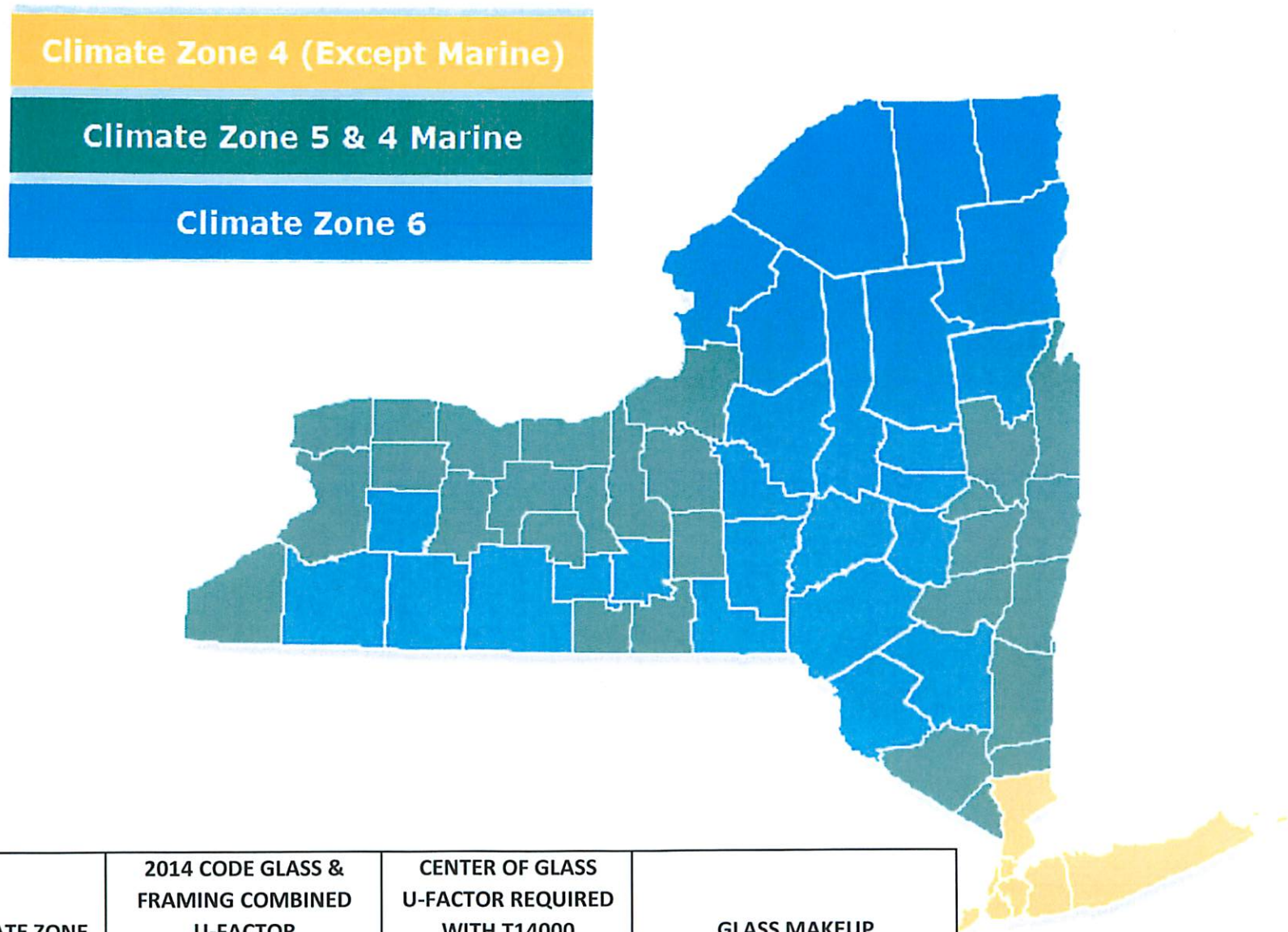
2000 mm x2000mm (78-3/4 in x78-3/4in) as required in NFRC 100.

Overall U-factors and Solar Heat Gain Coefficients (SHGC) listed in the matrix were determined in accordance with NFRC 100 and NFRC 200 respectively by a NFRC accredited laboratory.

ACCREDITED LABORATORY: Architectural Testing

Reference Test Report #: 65916.01-116-45

AAMA 507-07



CLIMATE ZONE	2014 CODE GLASS & FRAMING COMBINED U-FACTOR	CENTER OF GLASS U-FACTOR REQUIRED WITH T14000	GLASS MAKEUP
4, 5	.38	.26	1" - Guardian SN 68 (#2), Argon, Clear
6	.36	.24	1" - Guardian SNX 62/27 (#2), Argon, Clear