

INSULATING GLASS ENERGY PERFORMANCE OPTIONS BY COLOR



Energy Conservation Construction Code of NYS - 2010 (effective mid-Sept. 2010) requirements for storefronts and curtainwalls - (glass & framing) under 40% glazing/total wall area .45 U-factor, .40 SHGC with PF<.25. No SHGC requirement with PF>.25. Fixed & operable windows U-factor .55 (same SHGC as Storefront). Entrance door U-factor .80. See Code for skylights. Code requirements listed here apply to NY State counties except NY City and Long Island.

COLOR	OUT/IN	VISIBLE LIGHT TRANS.	CENTER-OF-GLASS U-FACTOR		GLASS & T14000 FRAMING U-FACTOR		GLASS & THERMAL DOOR U-FACTOR	
			AIR/ARGON	SHGC	AIR/ARGON	SHGC	AIR/ARGON	SHGC
Code	Entrance Door with PF<.25 Entrance Door with PF>.25 Storefront with PF<.25 Storefront with PF>.25 Fixed Window with PF <.25 Fixed Window with PF >.25		PF - Projection Factor = Horizontal distance between end of overhang or shading device and glass surface divided by vertical distance between bottom of glass and underside of shading device.				.80 .80	.40 Any
Clear	Clear/Clear Clear/Pilk EnAd Pilk EnAd/Clear PilkSolE/Clear SN-68/Clear SN-54/Clear	78% 73% 73% 53% 68% 54%	.47 .33/.28 .33/.28 .33/.28 .29/.25 .29/.25	.70 .67 .62 .45 .38 .28	.55 .44/.39 .44/.39 .44/.39 .40/.37 .40/.37	.65 .62 .58 .42 .35 .26	.70 .66/.63 .66/.63 .66/.63 .64/.62 .64/.62	.38 .37 .34 .26 .22 .17
Bronze	Bronze/Clear Bronze/PilkEnAd Pilk EclAd Bronze/Clear Bronze/SN-68	45% 42% 34% 41%	.47 .33/.29 .35/.30 .29/.25	.50 .45 .38 .31	.55 .44/.40 .45/.41 .40/.37	.46 .42 .35 .29	.70 .66/.63 .67/.64 .64/.62	.28 .26 .22 .19
Gray	Gray/Clear Gray/PilkEnAd Pilk EclAd Gray/Clear Gray/SN-68	39% 36% 29% 35%	.47 .33/.29 .35/.30 .29/.25	.45 .40 .33 .30	.55 .44/.40 .45/.41 .40/.37	.42 .37 .30 .28	.70 .66/.63 .67/.64 .64/.62	.26 .23 .19 .18
Green	Green/Clear Green/PilkEnAd Pilk EclAd BlueGreen/Clear Green/SN-68 SN-68Green/Clear	69% 63% 51% 58% 58%	.47 .33/.29 .35/.30 .29/.25 .29/.25	.49 .44 .38 .35 .30	.55 .44/.40 .45/.41 .40/.37 .40/.37	.45 .41 .35 .33 .28	.70 .66/.63 .67/.64 .64/.62 .64/.62	.28 .25 .22 .21 .18
Dark Green	Evergreen/Clear Evergreen/PilkEnAd Pilk EclAd Evergreen/Clear	58% 54% 43%	.47 .33/.29 .35/.30	.40 .35 .29	.55 .44/.40 .45/.41	.37 .33 .27	.70 .66/.63 .67/.64	.23 .21 .17
Blue	ArcBlue/Clear ArcBlue/SN-68 ArcBlue/PilkEnAd Pilk EclAd ArcBlue/Clear	47% 44% 43% 35%	.47 .29/.25 .33/.29 .35/.30	.39 .30 .34 .29	.55 .40/.37 .44/.40 .45/.41	.36 .28 .32 .27	.70 .64/.62 .66/.63 .67/.64	.23 .18 .21 .18

PilkEnAd - Pilkington Energy Advantage Passive Solar Low E

PilkSolE - Pilkington Solar E Pyrolytic Solar Control Low E

SN-68 - Guardian SN-68 Soft Coat Solar Control Low E

SN-54 - Guardian SN-54 Soft Coat Solar Control Low E

Pilk EclAd - Pilkington Eclipse Advantage Solar Control Low E

See Pilkington, PPG, or Guardian web site thermal stress calculators or call us for stress analysis with your input on job conditions before selecting annealed tinted glass. Tinted glass, especially when combined with a Low E coated glass in an insulating unit, may require the outboard lite to be heat treated to avoid heat stress breakage.

Glass & Framing Performance is based on Tubelite T14000 Thermally Broken Flush Glazed Storefront Values calculated based on NFRC Standard Glazed Wall System size of 78-3/4 x 78-3/4 (91.6% vision area/total area).

Glass & Thermal Door Performance is based on Tubelite Thermal Door with 49.3% vision area/total area.

This chart is a general guide. Specific project energy code requirements and compliance documents should be determined with code officials or design professionals.