



National Fenestration Rating Council Bulletin

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July 15, 2013

Subject: NFRC – Technical Bulletin 2013-08 (Information Only)

This bulletin announces the publication of a new technical interpretation, revision to the THERM 6.3/WINDOW 6.3 NFRC Simulation Manual, and CMA Single-Glazed Frame Components update.

The revised documents, listed below, have been published and may be downloaded by clicking on the document names. Non-NFRC members may access the documents by [clicking on this link to the Technical Documents page on the NFRC website](#).

Item 1: TI-2013-03 Modeling of a Vapor Barrier in Spacers

TIPC approved TIR-2013-04 as TI-2013-03 on June 19, 2013. This TI is in regard to a thin non-metal layer, typically used as a vapor barrier, in a spacer system. The TI can be found in the 2010 TI Manual (E1A15), posted on the [Technical Documents page on the NFRC website](#), and may be used immediately.

Item 2: Revision of THERM 6.3/WINDOW 6.3 NFRC Simulation Manual (July 2013 Version)

This recent revision was to correct for omissions and errors.

Item 3: CMA Single Glazing in THERM6

It was announced in Technical Bulletin 2010-04 that there was a bug in THERM that caused the glass boundary condition to be incorrect for single-glazed CMA glass. It has been identified that the THERM6 *.ini file has a code that is automatically assigning the emissivity of the interior surface of the glazing as 0.026. Therefore, each simulator is required to modify THERM's *.ini line item identified as "CMASingleGlzSysInsideEmiss". Once the following steps are followed to correct the CMA single-glazing inside emissivity, frame components with CMA Single Glazing may be imported into CMAST and used for NFRC certification. The steps to correct this are as follows:

1. Find the location of THERM6.ini file
 - o For Microsoft Windows XP, it is located in: C:\Program Files\LBNL\Settings

- For Microsoft Windows 7 and Windows 8, it is located in: C:\Users\Public\LBNL\Settings
2. Open the THERM6.ini file and change the line item, "CMASingleGlzSysInsideEmiss", from 0.026 to 0.84. (Screenshot below; contact [Dennis Anderson](#) to receive a larger image.) Be sure to only change the single-glazing emissivity and not the dual-glazed line item for it is already set to 0.84.
 3. Save over the original THERM6.ini file. If you want to save the original file, you will need to save it with a different name (e.g. THERM6original.ini.ini).

BEFORE

```

THERM6 - Notepad
File Edit Format View Help
ShowColorLegend=0
SplashText=c:\Program Files (x86)\LBNL\THERM6\splash.txt
W4GlazingLib=c:\Users\Public\LBNL\WINDOW6\junk99.mdb
SIMPPath=c:\Users\Public\LBNL\THERM6\SIM
DocPath=c:\NFRC\Backup\Sim Tng Materials-2013\Backup Files-Sim Tng - not
BCLibName=c:\Users\Public\LBNL\THERM6\Lib\bc.lib
MaterialLibName=c:\Users\Public\LBNL\THERM6\Lib\material.lib
UFactorLibName=c:\Users\Public\LBNL\THERM6\Lib\ufactor.lib
GasLibName=c:\Users\Public\LBNL\THERM6\Lib\gas.lib
AttributeLibName=c:\Users\Public\LBNL\THERM6\Lib\attributes.lib
SiteToInteriorShade=0.0000
SiteToExteriorShade=0.0000
ISOradiationAmbFix=1
CMAGlassLayer1Thickness=6.0
CMAGlassLayer2Thickness=6.0
CMAGlassLayer1Conductivity=1.0
CMAGlassLayer2Conductivity=1.0
CMAGLzSysOutsideEmiss=0.84
CMAGLzSysInsideEmiss=0.84
CMALowGlazingGapConductance=0.498817
CMAHGHlazingGapConductance=5.880546
CMALowSpacerConductance=0.01
CMAHGHSpacerConductance=10.0
CMATIn=21.0
CMATOut=-18.0
CMAGlazingExteriorBC=NFRC 100-2010 Exterior
CMAGlazingInteriorBC=Interior
CMAGlazingExteriorOption=4
CMAGlazingInteriorOption=3
CMAHGHlzSysInsideConvectiveFilm=2.866122
CMALowGlzSysInsideConvectiveFilm=1.854252
CMASingleGlassLayerThickness=6.0
CMASingleGlassLayerConductivity=1.0
CMASingleGlzSysOutsideEmiss=0.84
CMASingleGlzSysInsideEmiss=0.026
CMAHGHSingleGlzSysInsideConvectiveFilm=3.415185
CMALowSingleGlzSysInsideConvectiveFilm=3.529954
UpdateNotificationFrequency=0
UpdateNotificationFrequencyDays=3
EnableGUID=1
NotifyOption=0
NotifyBeta=1
NotifyNFRC=1
NotifyRelease=1

```

AFTER

```

THERM6 - Notepad
File Edit Format View Help
GasLibName=c:\Users\Public\LBNL\THERM6\Lib\gas.lib
AttributeLibName=c:\Users\Public\LBNL\THERM6\Lib\attributes.lib
SiteToInteriorShade=0.0000
SiteToExteriorShade=0.0000
ISOradiationAmbFix=1
CMAGlassLayer1Thickness=6.0
CMAGlassLayer2Thickness=6.0
CMAGlassLayer1Conductivity=1.0
CMAGlassLayer2Conductivity=1.0
CMAGLzSysOutsideEmiss=0.84
CMAGLzSysInsideEmiss=0.84
CMALowGlazingGapConductance=0.498817
CMAHGHlazingGapConductance=5.880546
CMALowSpacerConductance=0.01
CMAHGHSpacerConductance=10.0
CMATIn=21.0
CMATOut=-18.0
CMAGlazingExteriorBC=NFRC 100-2010 Exterior
CMAGlazingInteriorBC=Interior
CMAGlazingExteriorOption=4
CMAGlazingInteriorOption=3
CMAHGHlzSysInsideConvectiveFilm=2.866122
CMALowGlzSysInsideConvectiveFilm=1.854252
CMASingleGlassLayerThickness=6.0
CMASingleGlassLayerConductivity=1.0
CMASingleGlzSysOutsideEmiss=0.84
CMASingleGlzSysInsideEmiss=0.84
CMAHGHSingleGlzSysInsideConvectiveFilm=3.415185
CMALowSingleGlzSysInsideConvectiveFilm=3.529954
UpdateNotificationFrequency=0
UpdateNotificationFrequencyDays=3
EnableGUID=1
NotifyOption=0
NotifyBeta=1
NotifyNFRC=1
NotifyRelease=1
NUMThreadsInCalcManager=1
ThermSaverFormat=0
SaveXML=0
Russian=0
MinRunSpace=1
ColorFluxMin=0.0000
ColorFluxMinAuto=0
ColorFluxMax=100.0000

```

If you have any questions concerning the information in this *NFRC Technical Bulletin*, please contact [Dennis Anderson](#) at 240-821-9514 or [Scott Hanlon](#) at 240-821-9519.

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