



Informative Memorandum

New CPD Voluntary Product Option Expansion Process

Historically, the NFRC's Certified Products Directory has expanded product options by U-factor rating only, which generates separate individual product option numbers for each product option. An alternate process of using an Identical Rating Value (IRV) grouping to expand data in the Certified Products Directory (CPD) has been developed and implemented. The process was established to offer manufacturers a simplification in the labeling process by allowing one CPD number to represent multiple product options.

In order to assist our participants, the following will explain many of the details regarding the full CPD number and the new expansion process.

NOTE: This new population is voluntary and participants are not required to convert their product lines to the new expansion format.

Population of Product Options in the CPD

U-factor expansion process: populates a different CPD number to be displayed on the label for each product option even though the options may have the same rating values. The manufacturer is required to display the CPD number on the temporary label associated with each specific option.

IRV expansion process: populates the product options to allow one CPD number to represent multiple individual product options within a group series. The Group ID (italicized in table 2 below) will be listed in the CPD for the IA, participant, and the public to help differentiate the options, but is not required to be listed on the temporary label. The Previous CPD number is only for reference in this example and when previewing a product line's expected IRV conversion, once a conversion is completed this correlation will no longer be available.

Details about the IRV Expansion Process

Manufacturers are not required to use the IRV voluntary expansion process. In some cases manufacturers may currently have the capabilities to display the full CPD number on the label and may not need to use this process.

If a manufacturer chooses to use this process, they can select any number of product lines to convert and are not required to use the process for all of their product lines.

The conversion shall only be performed by the Inspection Agency with the participant's authorization.

Prior to authorizing an IA to convert the product line, NFRC has provided the manufacturer a viewer and export tool. The purpose of the tool is to provide the manufacturer the necessary information to understand if the conversion meets their needs.

- The exported data from the viewer tool **cannot** be used for labeling.
- When the manufacturer authorizes the IA to convert a product line, the manufacturer will be able to export the authorized data via the normal process.
- To assist the manufacturer, IA, and simulation lab, manuals are available for download on the NFRC website at: <http://nfrccommunity.site-ym.com/default.asp?page=CPD20Info>
- There is no action required by the laboratories to convert any product lines.

NFRC is currently designing a process for *new* product lines to use the IRV expansion process at the initial approval for certification by the IA. In the mean-time, if a participant wants a new product line to use the IRV expansion process, the IA will have follow the current approval practices and then convert the product line after approving the product line's initial certification.

Requirement to Display Full CPD Number on Temporary Label

Per Section A.5.E of Appendix A of the NFRC 700, the full CPD Number is to be displayed on the NFRC Temporary Label which is now required on **April 1, 2013**:

Version 1: ABC-T-1-00001-00001

or

Version 2: ABC-T-1-00001

The version that will be displayed on the temporary label depends on the CPD number that is displayed on the Certification Authorization Report (CAR).

Understanding the Full CPD Number:

ABC	-	T	-	1	-	00001	-	00001
[Mfr. ID#]		[IA Code]		[Product Line ID]		[Individual Product ID]		[SHGC ID]

Mfr. ID#: The manufacturer's three letter alpha or numeric code

IA Code: The manufacturer's Inspection Agency alpha code

Product Line ID: The product line's ID number, which can be designated with or without leading zeros, i.e., "1" or "0001"

Individual Product ID: The ID number representing a grouped series of product options

SHGC ID: The grouped series product option's numbers for each specific option.

Group Series

A group series is one Product ID option that contains multiple individual options which were grouped by NFRC product line option grouping criteria.

Grouped Series	ABC-T-1-00231-00001
	ABC-T-1-00231-00002
	ABC-T-1-00231-00003
Grouped Series	ABC-T-1-00232-00001
	ABC-T-1-00232-00002
	ABC-T-1-00232-00003

Current U-factor Grouping Expansion Process:

The current U-factor expansion process generates product options into a grouping with the same Individual Product ID which is based on a U-factor rating grouping.

The following example displays one grouped series within a product line demonstrating the expansion method of the U-factor group leader in conjunction with the grouped product options.

Table 1: U-factor Grouping Expansion

Option Description		Energy Ratings			CPD Information
Glazing	Grid	U-factor	SHGC	VT	CPD# *
Low-E with Spacer #1	No	0.35	0.50	0.49	ABC-T-1-00231-00001
Low-E with Spacer #1	Yes	0.35	0.40	0.38	ABC-T-1-00231-00002
GY / Low-E with Spacer #1	No	0.35	0.35	0.30	ABC-T-1-00231-00003
GY / Low-E with Spacer #1	Yes	0.35	0.30	0.27	ABC-T-1-00231-00004
Low-E with Spacer #2	No	0.35	0.50	0.49	ABC-T-1-00231-00005
Low-E with Spacer #2	Yes	0.35	0.40	0.38	ABC-T-1-00231-00006
GY / Low-E with Spacer #2	No	0.35	0.35	0.30	ABC-T-1-00231-00007
GY / Low-E with Spacer #2	Yes	0.35	0.30	0.27	ABC-T-1-00231-00008

*The entire CPD # is displayed on the Temporary Label

All the options are expanded, regardless of the SHGC and VT ratings, under the same grouped series (Individual Product ID - 00231) because each option has the same U-factor group leader and each option receives a SHGC ID in sequential order due to different component characteristics.

- The options are populated solely based on the U-factor group leader. Each option received the same Individual Product Option ID and a unique SHGC ID based on the different components, such as spacer, grid, or tint.
- Even though there are identical rating values (i.e., 00231-00001 and 00231-00005), the U-factor expansion requires a different CPD number for each option for labeling purposes.

Voluntary Identical Rating Value Product Option Expansion Process:

This process is only available to CPD product lines which are currently certified. This conversion is not available for Applied Film Products. In cases where a manufacturer wants to apply the IRV expansion process to a *new* product line, the IA must first approve the product line by following the current approval practices and then convert the product line to an IRV expansion process.

The voluntary expansion process generates a currently grouped series of product options into a grouping with the same Individual Product ID and same SHGC ID which is based on the IRV grouping.

The following example displayed below, represents the final outcome when converting a current U-factor expansion grouped series (see the example listed above) to the new voluntary IRV expansion process.

The converting process will archive the current options (those using the U-factor grouping process) and apply the next available Individual Product ID in the product line for all options by using the IRV process.

Table 2: Identical Rating Value (IRV) Expansion:

Option Description		Energy Ratings			CPD Information		
Glazing	Grid	U-factor	SHGC	VT	New CPD# *	Group ID	Previous CPD # **
Low-E with Spacer #1	No	0.35	0.50	0.49	ABC-T-1-00501-00001	1	ABC-T-1-00231-00001
Low-E with Spacer #2	No	0.35	0.50	0.49	ABC-T-1-00501-00001	2	ABC-T-1-00231-00005
Low-E with Spacer #1	Yes	0.35	0.40	0.38	ABC-T-1-00501-00002	1	ABC-T-1-00231-00002
Low-E with Spacer #2	Yes	0.35	0.40	0.38	ABC-T-1-00501-00002	2	ABC-T-1-00231-00006
GY / Low-E with Spacer #1	No	0.35	0.35	0.30	ABC-T-1-00501-00003	1	ABC-T-1-00231-00003
GY / Low-E with Spacer #2	No	0.35	0.35	0.30	ABC-T-1-00501-00003	2	ABC-T-1-00231-00007
GY / Low-E with Spacer #1	Yes	0.35	0.30	0.27	ABC-T-1-00501-00004	1	ABC-T-1-00231-00004
GY / Low-E with Spacer #2	Yes	0.35	0.30	0.27	ABC-T-1-00501-00004	2	ABC-T-1-00231-00008

*The entire CPD # is displayed on the Temporary Label

** This CPD # is for informative purposes and is not placed on the temporary label

During the conversion, the options were grouped based on having identical U-factor, SHGC, and VT ratings, as well as identical SHGC and VT Center-of-Glass (COG) values. Options are populated into the same grouped series (Individual Product ID - 00501) based on the original U-factor grouped series (Individual Product ID – 00231) and receive the same SHGC ID based on having met the IRV grouping criteria. A Group ID is applied in sequential order to quantify the number of different options within the same SHGC ID grouping.

- The two Low-E options without grids have identical energy performance ratings (U-factor, SHGC, and VT) and identical COG values (SHGC and VT) resulting in an identical CPD, with a different Group ID due to the spacer.
- The two Low-E options with grids have identical energy performance ratings (U-factor, SHGC, and VT) and identical COG values (SHGC and VT) resulting in an identical CPD, with a different Group ID due to the spacer.
- The two GY / Low-E options without grids have identical energy performance ratings (U-factor, SHGC, and VT) and identical COG values (SHGC and VT) resulting in an identical CPD, with a different Group ID due to the spacer.
- The two GY / Low-E options with grids have identical energy performance ratings (U-factor, SHGC, and VT) and identical COG values (SHGC and VT) resulting in an identical CPD, with a different Group ID due to the spacer.
- The application performs the following to populate the options:
 - Compared all the options within the grouped series and determined which options had identical COG values (SHGC and VT) and final energy performance ratings (U-factor, SHGC, and VT).
 - Options having identical groupings population resulted in different SHGC IDs for a total of four full CPD Numbers to represent eight total product options.