

CPD Code Control Manual [E0A8]

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1. INTRODUCTION

The CPD Code Control Manual provides guidelines and examples of proper usage of the descriptive codes used in the online NFRC Certified Products Directory. It is intended to provide Simulation and Test Labs and others with information on how to consistently code individual options into the CPD for a manufacturer's fenestration product.

A complete list of currently available codes can be found in the CPD application on the "Codes" tab or in the Products Directory Search along the top navigation bar.

2. CODE USAGE GUIDELINES

All products should be able to be represented by the codes available. In the event that a product does not fit into one of the available classifications, please follow the procedure outlined in Section 5.

2.1 Product Type Codes

Product Type (also called Operator Type) applies to the entire product line. In cases where products of a different type are allowed within the same product line, the primary Product Type shall be used. The operating version of the product always takes priority.

Example: Single Hung product which is also offered with fixed versions. This product line is coded VSSH, not FIXD.

Example: Operable Skylight which is also offered with fixed versions. This product line is SKOP, not SKFX.

In the event that a multi-lite casement or exterior door product is modeled in a single lite configuration per NFRC 100, the manufacturer, at their discretion, may use either the single lite (CSSV or EDSL) or dual lite (EDSL or DDFR) Product Code to represent the product.

In some cases, Entry Door Products (EDSL) and Sidelite Products (FXSL) have the same components and may be modeled identically and receive the same ratings. In this case, the same simulation represents both product types. Code DRFX has been established to allow for entry of this product into the CPD. Using DRFX will cause the

product line to be represented in public search as both product types, using the same CPD number.

2.2 Frame and Sash Codes

Frame codes and Sash Codes shall be evaluated and coded individually based on the overall product makeup for each. Where any member of a frame sash does not meet the criteria for a better performing code, the worst frame or sash code shall be used.

If a frame or sash is a combination of three or more materials, only the interior and exterior materials shall be considered when determining the correct code.

Products without a frame or sash

NF shall be used as the frame code if there is no frame (Example: point-supported systems). NF shall not be used as a sash code. NA shall not be used as a frame code. NA shall be used only as a sash code where a sash member is not present.

Example: Point supported system, with no frame or sash.
Frame code = NF, Sash Code = NA

Example: Vinyl picture window glazed directly into frame.
Frame code = VY, Sash Code = NA

Products with thermally broken or improved frames or sash

Thermally Broken (AT, ST, BT) codes shall only be used when all frame or all sash members meet the NFRC definition of thermally broken. If any members do not meet the definition, the product shall not use the thermally broken code for that frame or sash.

Thermally Improved (AU, SU, BU) codes shall only be used when all frame or all sash members meet the NFRC definition of thermally improved or thermally broken. If any members do not meet one of those definitions, the product shall not use the thermally improved code for that frame or sash.

Non-thermally broken (AN, SN, BN) codes shall be used if any frame or any sash members do not meet the definition of either thermally broken or thermally improved.

Example: Aluminum double hung window where all frame members and sash members are thermally-broken except for the interlock where the thermal break is only 0.125" in width.
Frame Code = AT, Sash Code = AU

Example: Aluminum double hung window where all frame members and sash members are thermally-broken except for the interlock where no thermal break is present.

Frame Code = AT, Sash Code = AN

Products with one operable and one non-operable lite

Certain products, like single hung windows, are offered with one operable and one non-operable glass lite. In cases where the non-operable lite is glazed directly into the outer frame of the product, the non-operable meeting rail(stile) shall be considered a part of the frame for coding purposes. In cases where the glass lite is glazed into a sash which is fixed into place, that fixed sash is considered part of the sash for coding purposes. If the manufacturer uses extrusions which snap into the frame to simulate the look of a sash, these are considered part of the frame for coding purposes.

Grouped products with different frame/sash codes

Frame codes and sash codes may be included in a product grouping if allowable by listing the relevant codes separated by a bar '|', with the group leader listed first.

Example: Vinyl double hung window offered with reinforced and non-reinforced sash members, where reinforced is the group leader. Sash Code = VR|VY

Products where different frame/sash codes may apply

Where products may be represented by two different codes, the “worst” performing of the two codes shall be used.

Example: Vinyl horizontal slider offered with foam fill in all frame and sash members but the interlock is reinforced. Frame code = VF, Sash Code = VR

Doors and Sidelites (EDSL, DDFR, DDSG, FXSL and DRFX)

For these products, the frame code shall be based on all cross-sections except the sill. The sash code shall be based on the design of the door sub-structure and shall be whichever frame/sash code is the most appropriate for that sub-structure design.

Tubular Daylighting Devices (TDDY)

For these products, the frame code shall be based on the material of the exterior flashing. The sash code for these products is ‘NA’.

2.3 Thermal Break Material Codes

NA shall be used if the product does not include a thermal break.

This code applies to the entire product line. If individual options vary in thermal break type, the code reflecting the type used in the highest number of individual options (counting group leaders only) shall be used. If multiple low conductance materials are used to make up the thermal break the material that is the longest in the direction of heat flow shall be used to determine the TB code.

In a thermally-slotted extrusion, there is no thermal break, so the 'NA' code shall be used.

In a system where the interior and exterior are attached via a bolt, the thermal break is air, so the 'AI' code shall be used.

2.4 Gap Fill Codes

All gap fill codes, with the exception of AIR, require an entry in the gap fill % column as well. Single glazed products shall not include an entry in the gap fill column.

All gas fills include some percentage of air. For all single gas fills (ARG, KRY, CO2, SF6, XEN) the gap fill percentage field shall include a single whole number value representing the inert gas %.

Example: KRY – Krypton/Air Mixture – 80 represents 80% Krypton with the remaining 20% air.

For multiple gas fills (AR3, XE2, XE3), the percentage of each gas shall be included separated by a backslash. The order of percentage shall match the order in the code description.

Example: AR3 – Argon/Krypton/Air Mixture – 70/20 represents 70% Argon, 20% Krypton with the remaining 10% air. 20/70 would represent 20% Argon, 70% Krypton with the remaining 10% air.

Vacuum Insulated Glazing Products shall be entered by indicating "VIG" or "VIC" in the appropriate Gap Fill column.

The VIG code shall be used when the product is calculated using the BERKLEY WINDOW software, using entries of pillar spacing, pillar geometry, pillar size and vacuum pressure as shown in Figure 2-1.

Figure 2-1: VIG Pillar and Pressure

Gap Library

ID #: 301

Name: default

☒ Vacuum

Molecular Weight: 28.970 Pressure: 0.10000 Pa 0.00075 Torr

Specific heat ratio: 1.400 Pillar Definition: 1 0.15mm radius -- 30mm sp >>

Gap Properties at Vacuum

Conductance 0.080097 W/m2-K

Gap Pillar Definition

ID: 1 Manufacturer: Generic

Name: 0.15mm radius -- : Comment:

Type: Circular

Radius: 0.150 mm

Spacing: 30.000 mm

New Delete Save OK Cancel

In the appropriate Gap Fill % column, the characteristics are specified using the following format in Table 2-1.

Table 2-1: VIG Code Characterization

30/C15/10000 **Use all places to represent each number*

Where

- 30 = pillar spacing, in mm*
 - C = pillar shape (C = Circular)
 - 15 = pillar size, radius in mm multiplied by 100*
 - 10000 = vacuum pressure in Pa, multiplied by 100000*
- *rounded to the nearest integer*

The VIC code shall be used when the product is calculated using the C* procedure found in NFRC 101. In the appropriate Gap Fill % column, the characteristics of the VIG shall be entered using the following format.

Table 2-2: VIC Code Characterization using NFRC 101 C* Procedure

30/106

Where

30 = *pillar spacing, in mm**
106 = *gap conductance, in W/m²-K multiplied by 1000**
**rounded to the nearest integer*

2.5 Tint Codes

This code represents the presence of a tint/color of one or more glazing layers. If a product does not have a tinted/colored glass layer, it would be designated Clear (CL). If a layer is tinted, please choose the most representative color choice.

2.6 Spacer Codes

Single pane units shall use N for the spacer code.

Spacer codes may be included in a product grouping if allowable by listing the relevant codes separated by a '|', with the group leader listed first. This will result in each spacer receiving its own entry in the CPD.

2.7 Grid Codes

Grid codes may be included in a product grouping if allowable by listing the relevant codes separated by a bar '|' with the group leader listed first. This will result in each grid receiving its own entry in the CPD. The grid code should represent the actual product being offered, not the configuration which must be modeled per the rules.

The available configurations and groupings are detailed below:

Grid Code Possibilities based on Offered Types

Code(s)	Product Offered									
	No Grid	Internal Grid		SDL		Internal Grid and SDL				TDL
	(N)	(G)		(S)		(W)				(T)
		> 3mm	< 3mm			> 3mm	< 3mm			
				WORFL	WRFL	WORFL	WRFL	WORFL	WRFL	
Items Not Grouped / Not Modeled										
N	X									
G		X								
S				X						
W						X				
Items Not Grouped / Items Fully Modeled										
G			X							
S					X					
W							-		X	
T										X
Items Not Grouped / Items Partially Modeled										
<i>Internal Grid Not Modeled / SDL Bar Modeled</i>										
W							X			
<i>Internal Grid Modeled / SDL Bar Not Modeled</i>										
W								X		
Possible Groupings / Not Modeled										
N,G	X	X								
N,G,S	X	X		X						
N,G,W	X	X				X				
N,G,S,W	X	X		X		X				
N,S	X			X						
N,S,W	X			X		X				
N,W	X					X				
Possible Groupings / Internal Grid Modeled / SDL Bar Not Modeled										
G,S			X	X						
G,W			X					X		
G,S,W			X	X				X		
S,W				X				X		
Possible Groupings / Internal Grid Not Modeled / SDL Bar Modeled										
S,W					X		X			
Possible Groupings / Fully Modeled										
S,W					X				X	

WORFL - Without Room Facing Low-E

WRFL - With Room Facing Low-E

	Internal Grid Bar GRID CODE = G (Grids between the glass) Grid shall be modeled if there is at < 3.00 mm air/gas space between the grid bar and both adjacent glass surfaces. (NFRC 100, 4.2.4.1.D.ii.(a))
	SDL Only (No Internal Grid Bar) GRID CODE = S (Simulated Divided Lites (without internal grid bars)) SDL shall be modeled if there is a room-facing low-e coating
	SDL with Internal Grid Bar GRID CODE = W (Simulated Divided Lites (with internal grid bars)) Internal Grid shall be modeled if there is at < 3.00 mm air/gas space between the grid bar and both adjacent glass surfaces. (NFRC 100, 4.2.4.1.D.ii.(a)) SDL shall be modeled if there is a room-facing low-e coating
	True Divided Lites GRID CODE = T (True Divided Lites) Unit consists of multiple smaller IG Units divided with structural components.

Possible Groupings

Internal grid bar and the external SDL bar are not modeled

N, G N, G, S N, G, W N, G, S, W N, S N, S, W N, W

Internal grid bar is modeled but the external SDL bar is not modeled

G, S G, W G, S, W S, W*

S, W may be grouped in multiple instances

Only the Internal Grid Bar is Modeled

Only the External SDL Bar is Modeled

Both the Internal Grid Bar and External SDL Bar are Modeled

2.8 Grid Size Codes

Grid size codes may be included in a product grouping if allowable by listing the relevant codes separated by a bar '|' with the group leader listed first (i.e if 1.50 grids are the leader and are grouped with 0.75 grids, they should be listed "1.50 | 0.75"). This will result in each grid size receiving its own entry in the CPD.

2.9 Door Codes

For operator types EDSL, DDFR, FXSL, DDSG, and DRFX products, the five door codes shall be included. For fully glazed, non-slab style doors (e.g. stile and rail doors), N may be used for all except the Door Description Code.

2.9.1 Door Description Codes

For opaque doors, EM, FL, or RP shall be used.

2.9.2 Door Sub-Structure Material Codes

Sub-structure applies to slab style doors. This describes underlying and/or edge materials.

2.9.3 Door Panel Codes

Door panel refers to the raised or embossed panel areas of the door slab. If the door is a flush or full lite door, N shall be used.

2.9.4 Door Skin Material Codes

Door skin material applies to the surface material of the product.

2.9.5 Door Core Fill Codes

Door core fill refers to the insulation (or other) material between the door skins.

2.10 Shading System / Dynamic Glazing Codes (Location, Type, State)

When entering a Shading System and/or Dynamic Glazing product, entries are required in each of these three fields.

2.10.1 Location Codes

G – Part of the glazing system: This code shall be used for any product which is part of the glazing layers or in the gap(s) of the insulated glass unit. Electrochromic, photochromic, thermochromic glazing and blinds-between-glass would all utilize this code.

I/E – Interior/Exterior to the glazing: These codes are used if the product is not an integral part of the insulated glazing unit.

2.10.2 State Codes

For these products, at a minimum, the highest visible transmittance state shall be certified/labeled. If using a dynamic label, the lowest visible transmittance state is also required.

For shading systems (shades and blinds), FRO/FDO represents the highest VT state. FDC represents the lowest VT state. Additional entries for blinds at +/-45 degrees may also be submitted.

For dynamic glazings (electrochromic, photochromic, thermochromic), the two required entries would be represented by the % of tint/deployment at the ends of the VT performance. Other intermediate % may also be submitted.

Example: Electrochromic glazing with clear state occurring when power is applied. 00P would represent the unpowered, lowest VT state. 99P would represent the fully powered, highest VT state. (for 100%, enter 99). Additional power levels could also be entered, such as 25P, 50P, 75P.

Example: Thermochromic glazing with clearest state occurring at the lowest temperature. Since temperature is the driving factor, the percentage tint shall be based on the temperature range which causes a change. If the glass remains at its clearest until reaching 24°C (75°F) and the darkens until it reaches its maximum tint at 40°C (105°F), the 24°C (75°F) state would be considered 00P and the 40°C (105°F) state would be considered 99P. Additional temperature levels could be included as well, such as 29°C (85°F) = 33P, 32°C (90°F) = 50P, and so on.

3. SPECIAL CASES

This section is for product types that require specific setups in order to process through the integrated Lab Report Test Tool and the CPD publication to a finished product line.

3.1 Entry Door –Upload Spreadsheet Setup

3.1.1 Opaque (No Lite) Options

- A. Pane ID Number – Blank
- B. Pane Thickness – Blank
- C. Tints shall contain the code “NA”
- D. The U-factor, SHGC, and VT COG columns shall contain a value.
- E. Spacer and Grid Type shall contain an “N”.
- F. Frame absorptance and emissivity shall contain a value.
- G. The Frame, Sash, and door descriptions shall contain a code. Use “N” for not applicable from the NFRC Directory Code List in cases where the column description is not applicable to the product.
- H. All door columns must be filled in with a code.
- I. U-Factor shall contain a value.
- J. Condensation Resistance or Condensation Index, if applicable, shall contain a value.
- K. The SHGC / VT 0 & 1 columns shall contain values but may be applied to match the grid code.

3.1.2 With-Lite Options

- A. For rows where the option contains a glazing option, the glazing descriptions are filled out appropriately, as well as the spacer and grid columns. The use of ZERO or 0.000001 in the COG columns as well as the requirement to have a code for the frame, sash, and door descriptions still applies.
- B. SHGC and VT COG columns
 - i. As indicated above, the SHGC and VT cog columns contain specific values to meet a

particular rating calculation. Unfortunately, the total rating calculation for both the SHGC and VT will be represented by a “-” in the interim when the total rating is less than 0.000001. For instance, if a door has a VTCOG value of 0.000001 and the 0 and 1 VT value is 0, the total VT rating calculation will be less than 0.000001, thus resulting in a dash for the rating.

- ii. For issues where a calculation generates a rating error on a CAR, contact the NFRC by emailing support@nfr.org for these issues which will be managed on a case-by-case basis.

3.2 Vacuum Insulated Glazing – Upload Spreadsheet Setup

- A. All columns shall be completed in the normal manner except:
 - i. Gap Fill – VIG or VIC depending on the calculation method.
 - ii. % of Gap Fill - Refer to Section 2.4 for specifics on using “VIG” or “VIC” as the gap fill.
 - iii. Spacer – Many VIG units do not have a typical spacer. Often the glass is “welded” together at the perimeter creating a hermetic seal. The code “GL-S” is used to describe this situation. There are new technologies being developed which use different technologies. If a code does not adequately describe the materials used at the perimeter seal, please refer to section 5 for guidance.

3.3 Products that cannot be rated for SHGC or VT

- A. For products that cannot obtain a rating (VT rating for glass blocks for example): A zero (0) is entered in the corresponding SHGC or VT cog column, which will result in a “-” DASH for the corresponding rating.

3.4 Products which have a VT or SHGC rating equal to zero

- A. SHGC C-O-G or VT C-O-G – If the actual value is 0, the user shall enter 0.000001 as the COG value. This causes the application to calculate the whole product value using the 0 and 1 values and 0.000001, which will

result in the same final result as if 0.000000 were entered. The system uses this value to differentiate between the actual 0 situations and situations where the rating cannot be achieved.

3.5 Products with Shades or Frits

- A. Where a product has a shade or frit, that layer shall be treated as a “Pane” in the upload using corresponding values from the Shading Library in WINDOW.
 - i. Pane ID = Shade/Frit ID number.
 - ii. Pane Thickness = Shade/Frit Thickness.

4. UPLOAD EXPANSION DETAILS

When multiple codes are entered in a single line on the upload spreadsheet, the system will expand that line into multiple lines in the Certified Products Directory. That expansion follows a specific process, as detailed below.

4.1 Expansion Hierarchy

- A. Step 1: Grid Size Field – First the system will create all possible combinations of each Grid Size. This is also partially reliant on the Grid Size Field, but that is primarily dealt with later.
 - i. For example, if “0.75 | 1.50” is entered in the Grid Size Field, the system will create:
 - (a) XYZ-T-815-00001-00001 as:
 - (i) Grid Size = 0.75
 - (b) XYZ-T-815-00001-00002 as:
 - (i) Grid Size = 1.50
- B. Step 2: Sash Type Field – Second the system will look create all possible options of the sash type field.
 - i. Building on step 1, if “VR | VY” is entered in the sash field the system will create:
 - (a) XYZ-T-815-00001-00001 as:
 - (i) Grid Size = 0.75
 - (ii) Sash Type = VR
 - (b) XYZ-T-815-00001-00002 as:

- (i) Grid Size = 1.5
 - (ii) Sash Type = VR
 - (c) XYZ-T-815-00001-00001 as:
 - (i) Grid Size = 0.75
 - (ii) Sash Type = VY
 - (d) XYZ-T-815-00001-00001 as:
 - (i) Grid Size = 1.5
 - (ii) Sash Type = VY
- C. Step 3: Frame Type Field
- D. Step 4: Grid Type Field
- E. Step 5: Spacer Type Field
- F. In a situation where all options are grouped as below, a total of 60 options would be created.
 - i. Grid Size = 0.75 | 1.50
 - ii. Sash Type = VR | VY
 - iii. Frame Type = VR | VY
 - iv. Grid Type = N | S | G
 - v. Spacer OF-S | A1-S | ZF-S
 - (a) The first 20 options would be OF-S spacer, the next 20 A1-S, the last 20 ZF-S.
 - (b) The remaining expansion would occur as detailed in the example in Appendix A.

5. CODE RAPID RESPONSE PROTOCOL

The following procedure shall be followed if it is unclear what code shall be used in a given situation. Either direction as to the correct code will be provided or a new code will be generated. The expected time to resolve a situation is approximately one week.

5.1 Initial contact

- G. E-mail the following information to: support@nfrc.org with “CPD Code Request” in the subject line.
 - i. Provide a detailed description of the concern in writing.

- ii. Provide a full set of cross-sectional drawings for the product in question.
 - (i) Provide a recommended course of action.

5.2 Follow-up

- A. Staff will review the request and determine the appropriate course of action. One of the following actions will be taken.
 - i. Requestor will be notified of the correct code to use for the given situation and if necessary, instructions to handle this situation will be added as an example to this manual.
 - ii. If necessary, a new code will be created, the requestor will be notified and instructions in the use of the new code will be added to this manual.

APPENDIX A: CPD EXPANSION EXAMPLE

Upload Spreadsheet Entries

Spacer Code = OF-S | A1-S | ZF-S

Grid Type = N | G | S

Grid Size = 0.75 | 1.50

Frame Type = VR | VY

Sash Type = VR | VY

Table A.1: Expanded Product Line when published in CPD

	Spacer	Grid Type	Grid Size	Frame Type	Sash Type
XYZ-T-815-00001-00001	OF-S	N	NA	VR	VR
XYZ-T-815-00001-00002	OF-S	N	NA	VR	VY
XYZ-T-815-00001-00003	OF-S	N	NA	VY	VR
XYZ-T-815-00001-00004	OF-S	N	NA	VY	VY
XYZ-T-815-00001-00005	OF-S	S	0.75	VR	VR
XYZ-T-815-00001-00006	OF-S	S	1.5	VR	VR
XYZ-T-815-00001-00007	OF-S	S	0.75	VR	VY
XYZ-T-815-00001-00008	OF-S	S	1.5	VR	VY
XYZ-T-815-00001-00009	OF-S	S	0.75	VY	VR
XYZ-T-815-00001-00010	OF-S	S	1.5	VY	VR
XYZ-T-815-00001-00011	OF-S	S	0.75	VY	VY
XYZ-T-815-00001-00012	OF-S	S	1.5	VY	VY
XYZ-T-815-00001-00013	OF-S	G	0.75	VR	VR
XYZ-T-815-00001-00014	OF-S	G	1.5	VR	VR
XYZ-T-815-00001-00015	OF-S	G	0.75	VR	VY
XYZ-T-815-00001-00016	OF-S	G	1.5	VR	VY
XYZ-T-815-00001-00017	OF-S	G	0.75	VY	VR
XYZ-T-815-00001-00018	OF-S	G	1.5	VY	VR
XYZ-T-815-00001-00019	OF-S	G	0.75	VY	VY
XYZ-T-815-00001-00020	OF-S	G	1.5	VY	VY
XYZ-T-815-00001-00021	A1-S	N	NA	VR	VR
XYZ-T-815-00001-00022	A1-S	N	NA	VR	VY
XYZ-T-815-00001-00023	A1-S	N	NA	VY	VR
XYZ-T-815-00001-00024	A1-S	N	NA	VY	VY
XYZ-T-815-00001-00025	A1-S	S	0.75	VR	VR

XYZ-T-815-00001-00026	A1-S	S	1.5	VR	VR
XYZ-T-815-00001-00027	A1-S	S	0.75	VR	VY
XYZ-T-815-00001-00028	A1-S	S	1.5	VR	VY
XYZ-T-815-00001-00029	A1-S	S	0.75	VY	VR
XYZ-T-815-00001-00030	A1-S	S	1.5	VY	VR
XYZ-T-815-00001-00031	A1-S	S	0.75	VY	VY
XYZ-T-815-00001-00032	A1-S	S	1.5	VY	VY
XYZ-T-815-00001-00033	A1-S	G	0.75	VR	VR
XYZ-T-815-00001-00034	A1-S	G	1.5	VR	VR
XYZ-T-815-00001-00035	A1-S	G	0.75	VR	VY
XYZ-T-815-00001-00036	A1-S	G	1.5	VR	VY
XYZ-T-815-00001-00037	A1-S	G	0.75	VY	VR
XYZ-T-815-00001-00038	A1-S	G	1.5	VY	VR
XYZ-T-815-00001-00039	A1-S	G	0.75	VY	VY
XYZ-T-815-00001-00040	A1-S	G	1.5	VY	VY
XYZ-T-815-00001-00041	ZF-S	N	NA	VR	VR
XYZ-T-815-00001-00042	ZF-S	N	NA	VR	VY
XYZ-T-815-00001-00043	ZF-S	N	NA	VY	VR
XYZ-T-815-00001-00044	ZF-S	N	NA	VY	VY
XYZ-T-815-00001-00045	ZF-S	S	0.75	VR	VR
XYZ-T-815-00001-00046	ZF-S	S	1.5	VR	VR
XYZ-T-815-00001-00047	ZF-S	S	0.75	VR	VY
XYZ-T-815-00001-00048	ZF-S	S	1.5	VR	VY
XYZ-T-815-00001-00049	ZF-S	S	0.75	VY	VR
XYZ-T-815-00001-00050	ZF-S	S	1.5	VY	VR
XYZ-T-815-00001-00051	ZF-S	S	0.75	VY	VY
XYZ-T-815-00001-00052	ZF-S	S	1.5	VY	VY
XYZ-T-815-00001-00053	ZF-S	G	0.75	VR	VR
XYZ-T-815-00001-00054	ZF-S	G	1.5	VR	VR
XYZ-T-815-00001-00055	ZF-S	G	0.75	VR	VY
XYZ-T-815-00001-00056	ZF-S	G	1.5	VR	VY
XYZ-T-815-00001-00057	ZF-S	G	0.75	VY	VR
XYZ-T-815-00001-00058	ZF-S	G	1.5	VY	VR
XYZ-T-815-00001-00059	ZF-S	G	0.75	VY	VY
XYZ-T-815-00001-00060	ZF-S	G	1.5	VY	VY