



FIRELITE®/WIRELITE® CUTTING & LABELING GUIDE

SECTIONS INCLUDE

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Getting Started	Cutting, Handling and Warranty
Permanent Label Masks (UL Required)	Permanent Label Masks & Temporary Label Stickers: Examples
Temporary Label Stickers (UL Required)	Stock Crate & Stock Product Labels: Examples

INTRODUCTION

To cut and label, or to cut, fabricate and label, FireLite® and WireLite® glass, your company may be established as a new TGP manufacturing location under TGP's UL Listing File.

As an authorized manufacturer, you will receive all necessary UL documents outlining limitations and allowances required for processing the glass. These documents will also be the base of the regular UL inspections.

If your company would like to be identified through the UL Certified Products Directory (UL Product iQ), TGP may recommend establishing an "Alternate Listee" File. The Alternate Listing File allows your company to be identified as a manufacturing location of FireLite and WireLite products.

FireLite and WireLite products can be cut in the same technique as "normal" float glass using a carbide wheel glass cutter. WireLite glass can be cut in the same technique as traditional wired glass.

FireLite and WireLite products must be Permanently marked or etched, indicating testing and specific hourly rating compliance in accordance with Underwriters Laboratories, Inc.® (UL) Classification Cards. An additional Temporary mark with additional identification is applied as a label to the glass for removal after final inspection by the local Authority Having Jurisdiction (AHJ). These marks also serve to easily identify the UL File number and/or manufacturing location for easy reference by the AHJ in the field.

A labeling program is easy to set up, but requires specific label approval (Permanent and Temporary) by the UL Label Center for the company that will be stocking, cutting and labeling the product. TGP will assist in drafting the specific artwork required for the products, and will help facilitate the approval with the Label Center. Once approved, you will be able to acquire the labels as needed. Changes to the labels must be reviewed and reapproved by TGP's UL Gatekeeper and the UL Label Center prior to use. The following steps will help guide you through the process.

GETTING STARTED

For Your Reference: TGP's UL File number for FireLite and WireLite products is R13377.

TGP will help you navigate the process of setting up an account with UL. Even if you already have an account with UL, TGP needs to start the process to implement you as a manufacturing location.

In a second step, TGP will initiate the Listing arrangement with UL.

TGP Contact

Ron Madeley

Principal Engineer | Business Interface Leader

Technical Glass Products

Ronald.Madeley@allegion.com

P 800.426.0279 ext. 8264

fireglass.com

PERMANENT LABEL MASKS

TGP currently works with Marvel Marking Products (MMP) to supply sandblasting labeling equipment and permanent label masks for our production. Although there are other suppliers of this equipment, MMP is familiar with the labeling needs for FireLite and WireLite products, as well as our current artwork. Laser engraving can be used as an alternative to sandblasting or acid etching the UL label on the glass. TGP can help your company with contact information and creating the artwork files for the laser.

MMP Contact

Marvel Marking Products, LLC
 customerservice@marvelmarking.com
 P 412.381.0700
 marvelmarking.com

Contact customer service to establish account information. They will guide you through the various application equipment options.

To best suit your company needs, the standard FireLite and WireLite product label artwork must be modified in the following way:

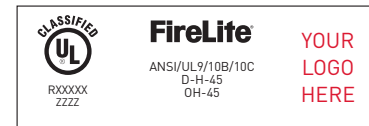
- Your “R” number, issued by UL, must be supplied in place of the “RXXXXX”, as shown on the sample label
- A unique identification code may be included on the label to identify your company, replacing the “ZZZZ”, as shown on the sample label (an example would be “TGP” for Technical Glass Products, “MMP” for Marvel Marking Products, etc.). If your production occurs in multiple locations, each location must be declared to UL, and each location will bear its own unique identification code. If your production occurs in a single location, the identification code is optional. Companies established as an Alternate Listee may also choose to include their own logo positioned to the right of the product identification area.

(Note: All permanent label mask samples at the end of this guide meet Marvel Marking mask specifications.)

(Note: If using a laser to etch the artwork, you can include your company logo.)

North American Market

Markets Outside of North America



Note: Final design must be submitted to Ron Madeley at Technical Glass Products for written approval. See page 5 of this document for contact information.

Current size and rating information for FireLite and WireLite products can be found on UL's website: ul.com or on TGP's website: fireglass.com.

TEMPORARY LABEL STICKERS



UL requires temporary marks (stickers) be applied directly to the product or on the smallest unit container in which the product is packaged. The temporary “mark” is the only method provided by UL to identify products manufactured under its Classification and Follow-Up Service. The Classification Mark for these products includes the UL symbol, the word “CLASSIFIED” above the UL symbol and the following additional information.

Note: See pages 16-17 of this document for examples of temporary label stickers. To obtain a template of a temporary label sticker for you to print through a UL-certified printer, please contact TGP. Visit UL's website at <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/glabsrch.html> for a list of certified UL printers (Requires an account at ULiQ, <https://iq.ulprospector.com> - free to set up).

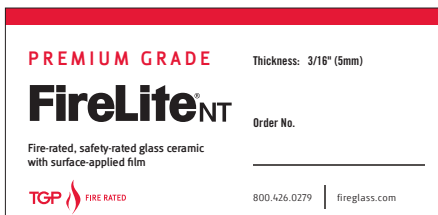
STOCK SHEET CRATES

Stock sheets are UL identified in two ways:

- Each crate has a “UL Classified Materials” sticker on the outside of it (See page 18 of this document for examples of stock crate labels)



- Each sheet has a sticker on one corner that indicates glass type and a hand-written number for TGP to use for tracing back to the date it was created (See page 19 of this document for examples of stock product labels)



When storing any of the FireLite or WireLite products, it is recommended that they be stored in the crate they shipped in. If the glass needs to be moved, the UL Classified sticker used on the outside of the crate must accompany the products wherever they are stored (and must clearly be visible). UL will look for all of these items during their quarterly inspections.

CUTTING, HANDLING, AND WARRANTY

Suggested Tools:

Note: These supplies can be purchased from any glazing supply company, such as CRL, etc.

- Glass cutter: Toyo brand self-oiling carbide wheel glass cutter works well
- Glass cutting oil
- Straight edge
- Flat-billed glass pliers
- Glass running pliers
- Measuring tape
- Propane torch (for FireLite Plus® laminated product)
- Thin razor blades

FireLite:

Glass cutter works similar to cutting float glass, but may take a bit more pressure. Make a few practice scores on a scrap piece, to get a feel for the glass. Use the running pliers to start the run, then lift/twist the two pieces at the score line.

FireLite Plus®:

Cutting is similar to cutting laminated glass. Score one side and then use the glass running pliers to start the run. Line up the score line with the edge of the glass table, lift the glass slightly then bring the glass down swiftly – matching the score line up along the edge of the table. If the score line is within 2 or 3 inches from the edge, use the flat-billed glass pliers in an “out and downward” motion, following the run along the entire length of the score line. Turn the glass sheet over and carefully line up the straight edge so the score lines are directly opposite each other (it’s very important there is no offset in the glass edges). Run the score line as described above. After the glass has been scored and run on both sides, line up the cut along the edge of the cutting table.

Although the glass and interlayer can withstand very high temperatures, care must be taken not to overheat the interlayer bonding. Continually moving the heat source back and forth along the cut line and watching for the glass to begin drooping down can accomplish this. When this happens, remove the heat and use the razor to separate the pieces.

Please note that the interlayer for FireLite Plus is now slightly thicker and more rigid than the previous interlayer.

- If using an automated cutter with heating element, increase the run time on the heat lamp
- If using a torch*, apply heat evenly across the entire cut for a longer duration
- Expect a louder pop when breaking the glass
- Make sure the blade used to cut the interlayer is sharp**



Torches

* We recommend you use a larger torch that attaches to a propane tank. Handheld propane torches are not able to provide enough heat across the entire cut.

These recommendations are guidelines only. Please ensure you are following your corporate safety procedures.

Blades

**We recommend Olfa knives and carbon blades.

FireLite NT:

This product has a film applied to one surface of the glass. The film is applied to meet Category II impact safety standards. The glass must be placed filmed side up on the cutting table. Care must be taken to ensure the table is clean with no glass chips or debris. Cut this product using the same method described for FireLite. After the glass has been scored and ran, the pieces should be separated on the table to avoid possible edge damage. FireLite NT does require some special handling, storage and care.

Handling, Storage and Care of FireLite NT:

Do not apply adhesive stickers or use any type of marking ink to the FireLite NT film side. Use 1/32" (or thicker) smooth ethafoam or separate pieces by using an ethafoam "C" channel around the perimeter. Do not use the square glass separation pads (usually about 3/4" square) against the film or on the film. These will leave an impression in the film. Concentrated pressure against the film will also leave a permanent impression in the film, as well as the possibility of scratching the surface. The film has a scratch resistant "hard-coat" coating on the surface to help protect against damage, but caution must still be used to ensure the surface is not damaged or scratched, as it is still a softer surface than the surface of the glass.

WireLite®:

WireLite is a monolithic, wired glass that cuts like traditional wired glass. The glass should be scored in a continuous and uniform depth along the entire length of the glass. Use a self-oiling carbide wheel glass cutter or cutting wheel that has been lubricated with cutting oil. After scoring the glass, the wires will need to be weakened. To do this, shift the glass to the end of the table with the scored section still supported by the cutting table. Snap or pop on the edge of the table as you would break annealed glass. Carefully, move the cut plate up and down in a slow and controlled manner. To avoid crushing the edge, flex the glass where the distance between the wire and the glass is the least. Once the cut-off is snapped off, use a metal tool to push down any remaining wires.

WireLite® NT:

WireLite is a monolithic, wired glass with a surface-applied fire-rated film on one surface of the glass. The film is applied to meet Category II impact safety standards. The glass must be placed filmed side up on the cutting table. Care must be taken to ensure the table is clean with no glass chips or debris. Cut this product using the same method described for WireLite. After the glass has been scored and ran, the pieces should be separated on the table to avoid possible edge damage. WireLite NT does require some special handling, storage and care.

CARE AND CLEANING/WARRANTY INFORMATION:

See complete care, cleaning, and warranty information online at fireglass.com/warranty.pdf

TGP Technical Contact

For technical questions regarding the contents of this document, please contact:

Ron Madeley

Principal Engineer | Business Interface Leader

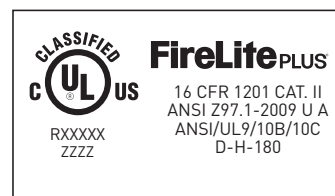
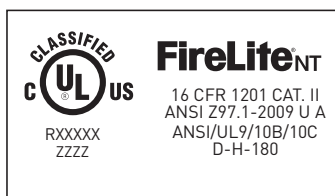
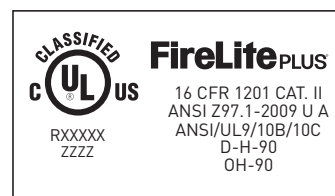
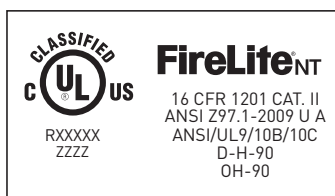
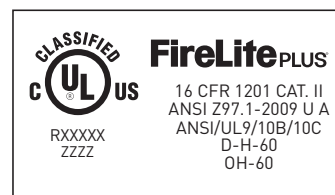
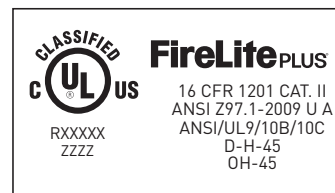
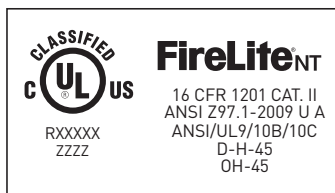
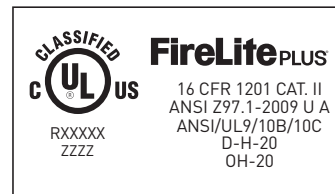
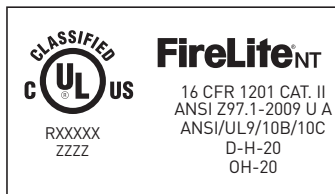
Technical Glass Products

Ronald.Madeley@allegion.com

P 800.426.0279 ext. 8264

fireglass.com

TGP FIRELITE DISTRIBUTION PARTNERS NORTH AMERICAN MARKET

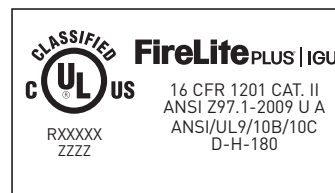
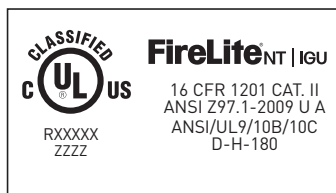
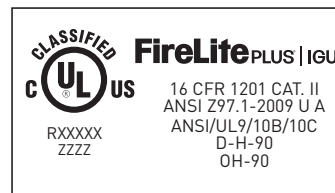
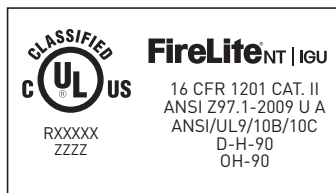
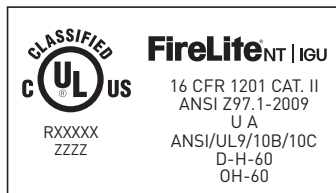
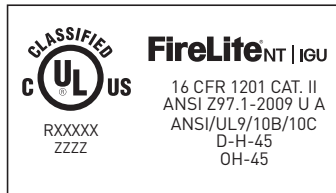
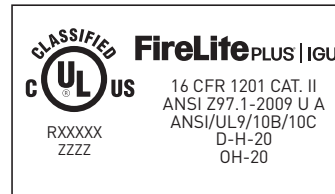
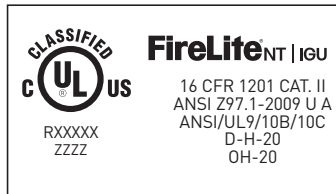


RXXXXX = Your listing number issued by UL.

ZZZZ = Your unique company/location identification letters, a minimum of 3 characters (your choice).

Submit final draft of artwork to TGP for approval.

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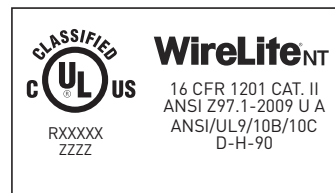
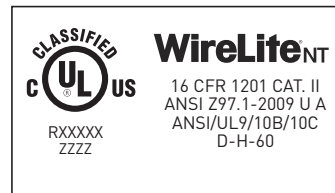
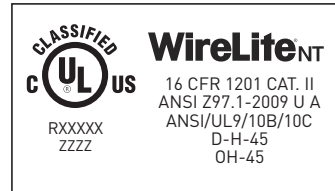
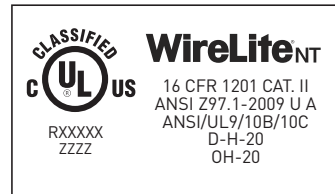


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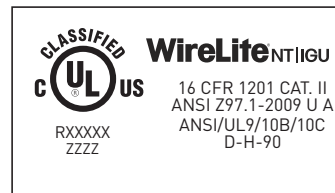
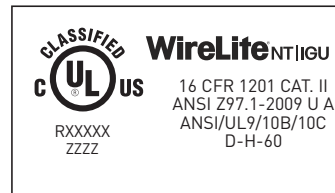
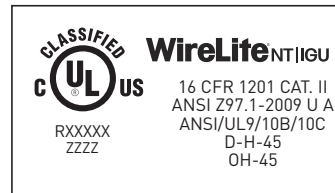
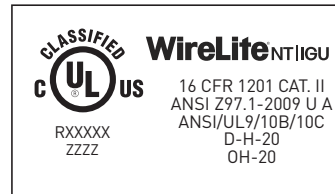
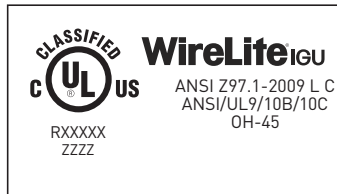


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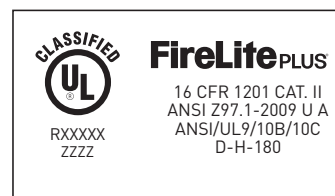
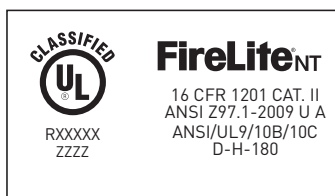
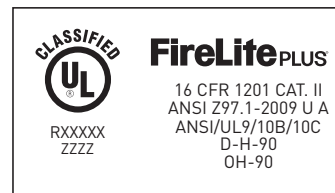
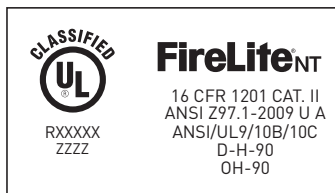
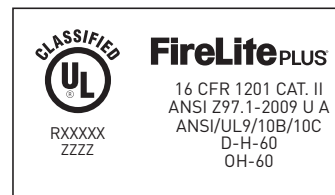
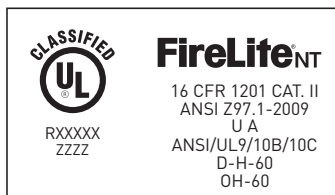
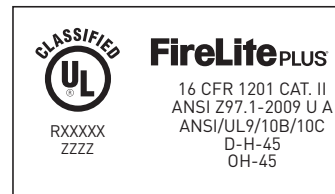
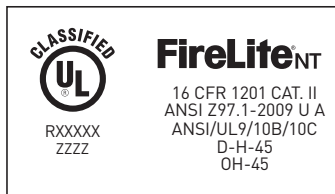
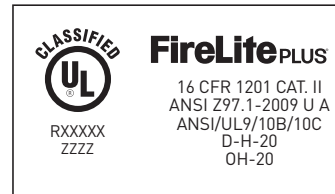
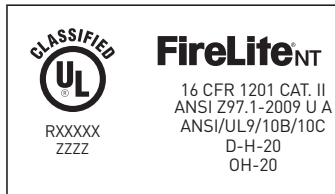


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TGP FIRELITE DISTRIBUTION PARTNERS MARKETS OUTSIDE OF NORTH AMERICA

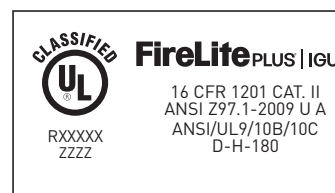
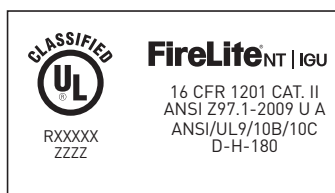
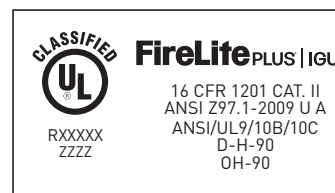
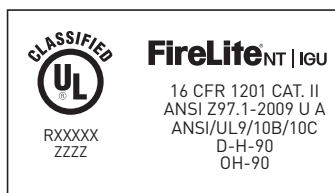
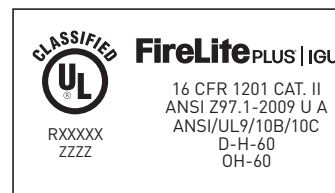
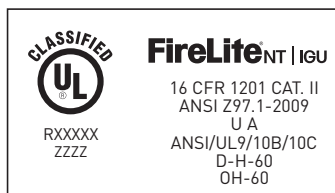
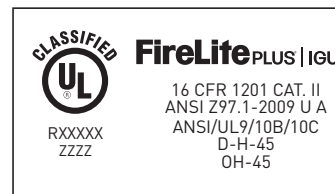
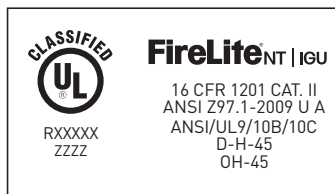
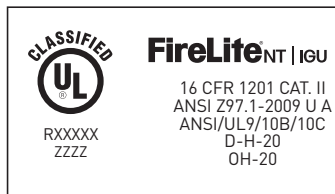


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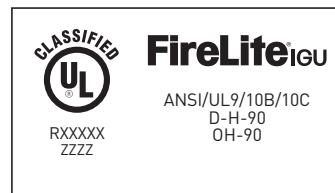
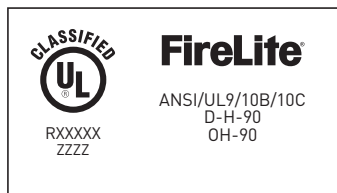
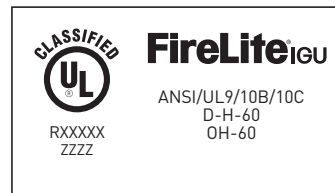
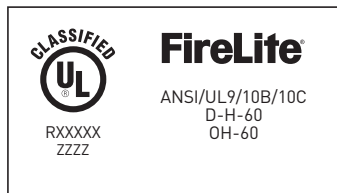
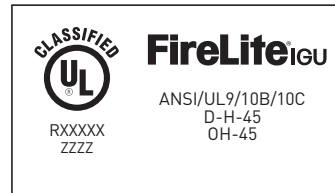
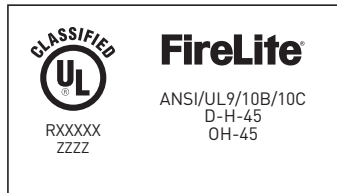
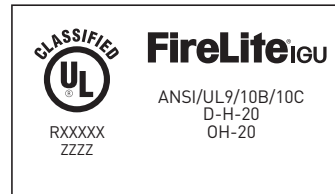
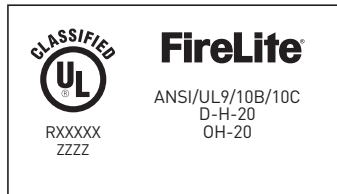


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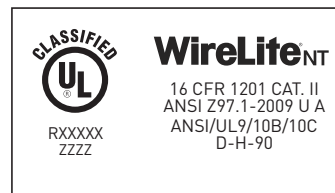
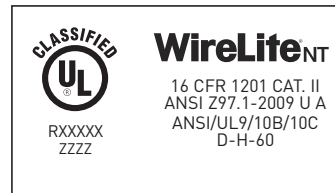
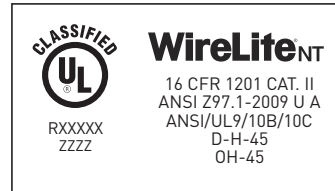
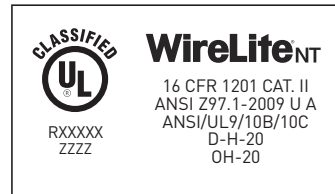
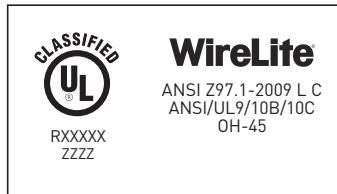


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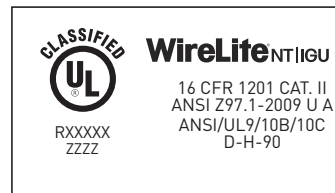
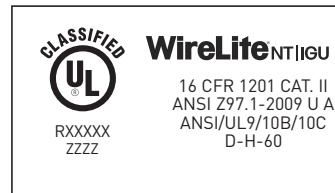
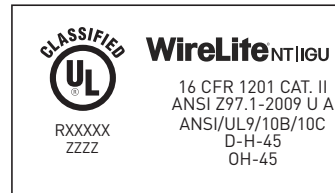
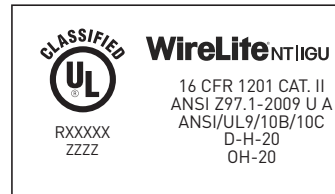
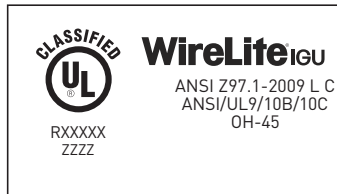


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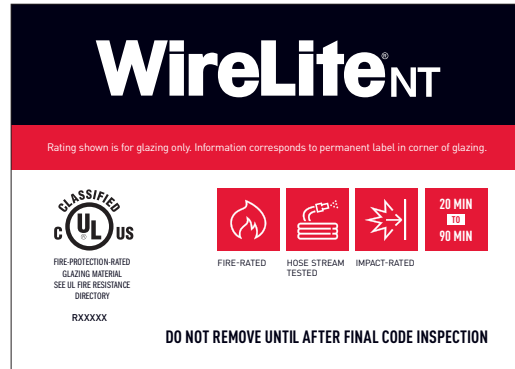
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