## Class A Fire Rating

### **Background**

classified for their ability to resist fire. All roofing products are tested and

as part of the roof system. Specifically, this were expanded to include solar equipment a system to ensure they achieve the same and roof covering to be tested together as requires the modules, mounting hardware Recently, these fire resistance standards fire rating as the original roof covering. These new requirements are being adopted throughout the country in 2016.

## IronRidge Certification

possible rating—from Intertek Group plc., a receive a Class A Fire Rating—the highest Nationally Recognized Testing Laboratory. IronRidge was the first company to

roofs in accordance with the new UL 1703 Systems were tested on sloped and flat IronRidge Flush Mount and Tilt Mount & UL 2703 test standards. The testing evaluated the system's ability to resist flame spread, burning material and structural damage to the roof.

requirements for achieving a Class A Fire Refer to the table below to determine the Rating on your next project.

## esting Process

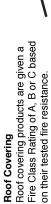
#### **Test Setup**

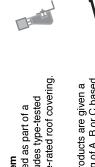
#### Solar Modules

Solar modules are given a Type classification based on their materials and construction.

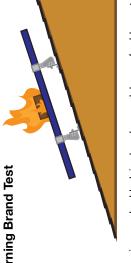
#### Mounting System

Mounting is tested as part of a system that includes type-tested modules and fire-rated roof covering.



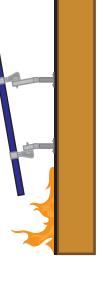


## **Burning Brand Test**



A burning wooden block is placed on module as a fan blows at 12 mph. Flame cannot be seen on underside of roof within 90 minutes.

#### of Flame Test Spread



Flame at southern edge of roof is aimed up the roof as a fan blows at 12 mph. The flame cannot spread 6 feet or more in 10 minutes.

Fire Rating*	Class A	Class A
Module	Type 1, 2, & 3	Type 1, 2, & 3
Roof Slope	Any Slope	≤ 6 Degrees
System	Flush Mount	Tilt Mount

\*Class A rated PV systems can be installed on Class A, B, and C roofs

# Frequently Asked Questions

**Tech Brief** 

## What is a "module type"?

this classification is to certify mounting systems without The new UL1703 standard introduces the concept of a PV module type, based on 4 construction parameters and 2 fire performance parameters. The purpose of needing to test it with every module.

constituents of the rating at this time. All code-compliant

flashing methods are acceptable from a fire rating

standpoint

Attachments and their respective flashings are not

What attachments and flashings are deemed compatible with Class A?

# What roofing materials are covered?

All fire rated roofing materials are covered within this certification including composition shingle, clay and cement tile, metal, and membrane roofs.

UL fire testing was performed with a gap of 5", which is

What mounting height is acceptable?

considered worst case in the standard. Therefore, the

rating is applicable to any module to roof gap.

# What if I have a Class C roof, but the jurisdiction now requires Class A or B?

in", and will not require re-roofing. However, if 50% or Generally, older roofs will typically be "grandfathered more of the roofing material is replaced for the solar installation the code requirement will be enforced.

No, IronRidge achieved a Class A fire rating without any

additional racking components.

Am I required to install skirting to meet the fire

code?

# Where is the new fire rating requirement code listed?

system for roof covering materials based on their ability

to withstand fire exposure.

Fire Classification refers to a fire-resistance rating

What determines Fire Classification?

Class B - effective against moderate fire exposure

Class C - effective against light fire exposure

Class A - effective against severe fire exposure

mounted photovoltaic systems shall have the same fire classification as the roof assembly required by Section 2012 IBC: 1509.7.2 Fire classification. Rooftop

# Where is a Class A Fire Rating required?

refers to a Class C fire rating. Class A or B is required for areas such as Wildland Urban Interface areas (WUI) and for very high fire severity areas. Many of these areas are has the most Class A and B roof fire rating requirements, The general requirement for roofing systems in the IBC found throughout the western United States. California due to wild fire concerns.

## Are standard mid clamps covered?

The tilt mount system is rated for 1 degrees and up and

any roof to module gap, or mounting height

What tilts is the tilt mount system fire rated for?

The IronRidge Class A rating will not diminish the fire

rating of the roof, whether Class A, B, or C.

What if the roof covering is not Class A rated?

Mid clamps and end clamps are considered part of the PV "system", and are covered in the certification.

## More Resources



### Installation Manuals

Visit our website for manuals that include UL 2703 Listing and Fire Rating Classification. Go to IronRidge.com



## **Engineering Certification Letters**

We offer complete engineering resources and pre-stamped certification letters.

Go to IronRidge.com