

## Corrosion Protection Requirements for Fasteners &amp; Connectors in Coastal Regions

For all connections described in this table: if corrosion is observed at time of re-designation, designation may not be renewed.



APPLICABLE STANDARDS:  
FORTIFIED HOME™ - HURRICANE (2020)  
FORTIFIED HOME™ - HIGH WIND (2020)

APPLICABLE STANDARDS:

DESCRIPTION:

CORROSION PROTECTION  
REQUIREMENTS

DRAWING #:

DATE:

7/1/2021

F-C-1

## Requirements &amp; Best Practices for FORTIFIED Roof™ Designations

	REQUIREMENTS		BEST PRACTICES
	Distance to saltwater shoreline <sup>1</sup>		Distance to brackish water shoreline
ROOF CONNECTIONS	0-300 ft	300-3000 ft	0-300 ft
Roofing nails for shingles	Category A	Category B (or better)	Category B (or better)
Concrete and clay roof tile fasteners			
Roof vent fasteners			
Metal roof system including panels and exposed fasteners, clips, etc.	Follow manufacturer's corrosion resistance guidance for coastal areas. If not provided by manufacturer, the following corrosion resistance categories may be accepted for exposed fasteners and clips		
	Category A	Category B (or better)	
Fasteners used for attachment of underlayment to roof deck	Category B (or better)		
Roof-mounted equipment exposed connections and fasteners	Category A	Category B (or better)	

## Requirements and Best Practices for FORTIFIED Silver™ and FORTIFIED Gold™ Designations

		REQUIREMENTS		BEST PRACTICES
		Distance to saltwater shoreline <sup>1</sup>		Distance to brackish water shoreline
EXTERIOR EXPOSED CONNECTIONS (including under soffits and elevated foundations)		0-300 ft	300-3000 ft	0-300 ft
Silver: <ul style="list-style-type: none"><li>Soffit fasteners</li><li>Exposed attached structure connectors, anchors, fasteners</li></ul>		Category A	Category B (or better)	Category B (or better)
Gold: Exposed CLP connectors, anchors, fasteners		Aluminum Soffits NOT Allowed	Aluminum Soffits Allowed	
		BEST PRACTICES		BEST PRACTICES
		Distance to saltwater shoreline <sup>1</sup>		Distance to brackish water shoreline
		0-300 ft	300-3000 ft	0-300 ft
Silver: <ul style="list-style-type: none"><li>Gable bracing metal connectors and fasteners</li><li>Gable outlooker hangers, clips and fasteners</li><li>Chimney framing metal connectors and fasteners</li></ul>		Category B (or better)		Category C (or better)
Gold: Enclosed CLP connectors, anchors, fasteners		Category C (or better)		

Corrosion Resistance Categories<sup>2,3</sup>

CATEGORY A - STAINLESS STEEL OR EQUIVALENT	CATEGORY B - ENHANCED GALVANIZED OR EQUIVALENT
<u>Metal connectors:</u> <ul style="list-style-type: none"> <li>Stainless steel per ASTM A316</li> </ul> <u>Fasteners:</u> <ul style="list-style-type: none"> <li>Stainless steel per ASTM A304 or A316</li> <li>Proprietary coated fasteners require documentation of equivalent corrosion protection performance to stainless steel, such as equivalence testing per ICC-ES AC257 Exposure Condition 4, or other comparative testing documentation</li> </ul>	<u>Metal connectors:</u> <ul style="list-style-type: none"> <li>Galvanized per ASTM A653 with G185 coating</li> <li>Hot-dip galvanized per ASTM A123</li> </ul> <u>Fasteners with diameters over 3/8 in.:</u> <ul style="list-style-type: none"> <li>Hot-dip galvanized per ASTM A153 Class C</li> </ul> <u>Fasteners with diameters up to 3/8 in. shall meet one of the following:</u> <ul style="list-style-type: none"> <li>Hot-dip galvanized per ASTM A153 Class D</li> <li>Galvanized per ASTM A641 Class 3</li> <li>Per ASTM G85, Annex 5, Corrosion resistance exhibiting not more than 5% red rust after the following: <ul style="list-style-type: none"> <li>for nails: 280 hours</li> <li>for roof tile fasteners: 1000 hours</li> <li>for other carbon steel fasteners: 360 hours</li> </ul> </li> <li>In lieu of testing listed above, proprietary coated fasteners require documentation of equivalent or superior corrosion protection performance to the galvanization options listed above, such as equivalence testing per ICC-ES AC257 Exposure Condition 4, or other comparative testing documentation</li> <li>Testing per ASTM B117 with corrosion resistance exhibiting not more than 5% red rust after 1,000 hours exposure may be accepted if no other testing is available</li> </ul>
CATEGORY C - STANDARD GALVANIZED	
<u>Metal connectors:</u> <ul style="list-style-type: none"> <li>Galvanized per ASTM A653 with G90 coating</li> </ul> <u>Fasteners:</u> <ul style="list-style-type: none"> <li>Galvanized per ASTM A641 Class 1</li> </ul>	

## NOTES

- For the purposes of FORTIFIED Home designation, "saltwater shoreline" shall be considered as the ocean or gulf coastline along the mainland United States including seaward island coastlines. This includes the Atlantic, Pacific, and Gulf of Mexico coastlines, as well as the coastline of any Bay or Sound with no land barrier separating it from being completely open to the ocean or Gulf of Mexico. Distances are measured from the closest feature of the subject building to the ocean or gulf coastline.
- Fastener and connector materials and coatings must be compatible with materials and coatings they come into contact with to prevent galvanic corrosion due to dissimilar materials.
- Fasteners in contact with chemically treated wood shall be in accordance with the requirements of the IBC/IRC or locally adopted code as applicable.