Technical Data Sheet IB[®] #12 Purlin Fastener

Product Description:

The IB #12 Purlin Fastener is designed to secure insulation and membrane to structural steel purlins in a metal retrofit applications. It is intended to be used in conjunction with the IB 3" isoweld® plate, and the IB 2-3/8" barbed seam plates.

Sizes:

3-3/4" - 6-3/4"

Packaging:

The fasteners come pre-packaged in a plastic bucket. See table for quantity and weights. Includes one #3 square bit.

Features:

- Extra stable #3 square drive provides superior bit engagement
- Shank diameter is smaller than that of the drill point and the outside thread diameter
- · 24 threads per inch provides greater pull-out values
- Drills through steel thicknesses of 18 ga (.045" nominal) through 1/4" (.250")
- E-coat meets FM Approval Standard 4470

Approvals:

- Factory Mutual (F.M.)
- Miami-Dade County (MD)
- Florida Building Code (FBC)

Application:

The IB #12 Purlin Fastener must penetrate through the steel purlins a minimum of 1". Using a heavy-duty (1800-2500 rpm) screw gun, drive the fastener until a slight depression is seen around the plate, or with very rigid insulation boards, watch for the plate to dimple. Note: Care must be taken not to overdrive the fastener and fracture the skin of the insulation. Fastener must be tight enough so that the plate does not turn. Note: Recommended tool 1800–2500 rpm screw gun equipped with depth sensing nosepiece

Typical Pull-out values (lbf. avg):

Steel 18 ga: 424 Steel 16 ga: 599 Steel 14 ga: 869 Steel 12 ga: 1477 Steel 3/16": 2300* Steel 1/4": 2300* *Denotes tensile failure of fastener (fastener failed in tensile before pulling out of substrate)



Fastener Length	Thread Length	Insulation Thickness	Packaging	Weight	
3-3/4"	2-5/8"	Up to 2-3/4"	1000	33 lbs	
4-3/4"	2-5/8"	1-1/4" to 3-3/4"	1000	41 lbs	
5-3/4"	2-5/8"	2-1/4" to 4-3/4"	1000	48 lbs	
6-3/4"	2-5/8"	3-1/4" to 5-3/4"	500	28 lbs	
Note: Thread length measured from top of threads to top of pilot					

Fastener Properties					
Fastener Dimensions		Fastener Strength Values			
Head	#3 square, pancake	Property	(lbs. ult)		
Head Height	.110"	Tensile	2300		
Head Diameter	.425"	Torsional	100 lbf-in		
Thread Diameter	.209"				
Blank Diameter	.179"				
Threads per inch	24				
Pilot Length	.75"				

Product details stated are nominal as manufactured, and the results of tests and/or calculations and therefore are non-binding and do not represent a guarantee or warranted characteristics. User and/or designer are responsible for confirming suitable performance for specific application and conforming with all applicable laws and regulations.

IB Roof Systems®