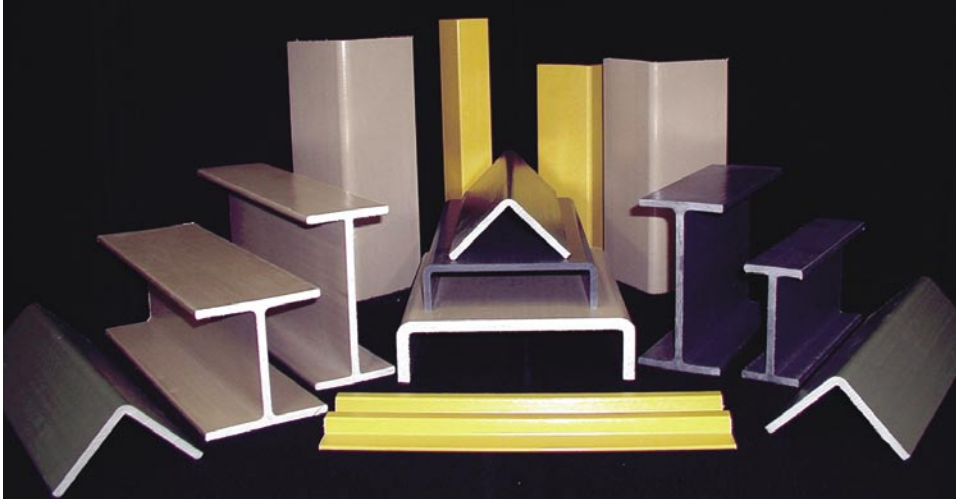


## FIBERGLASS STRUCTURAL PROFILES



When traditional building materials such as wood, steel, and aluminum fail to solve your design problems, let DEFI's knowledgeable employees assist you. We will offer you the only practical alternative, high performance composite profiles. DEFI offers the industries most comprehensive stocked product line inventories on the East Coast as well as the Gulf Coast. Whether you are replacing, retrofitting or starting a new build project of walkways, platforms, handrails, enclosures, decks or docks, material can reach your site within three days after shipment.

Call us or visit our website at [www.defifiberglass.com](http://www.defifiberglass.com) for product availability.



### Applications

- Cooling Towers
- Platforms
- Handrails
- Rooftop Concealment
- Caged / Fixed Ladders
- Deck Support
- Framing
- Stair Structure
- Walkways

### Features

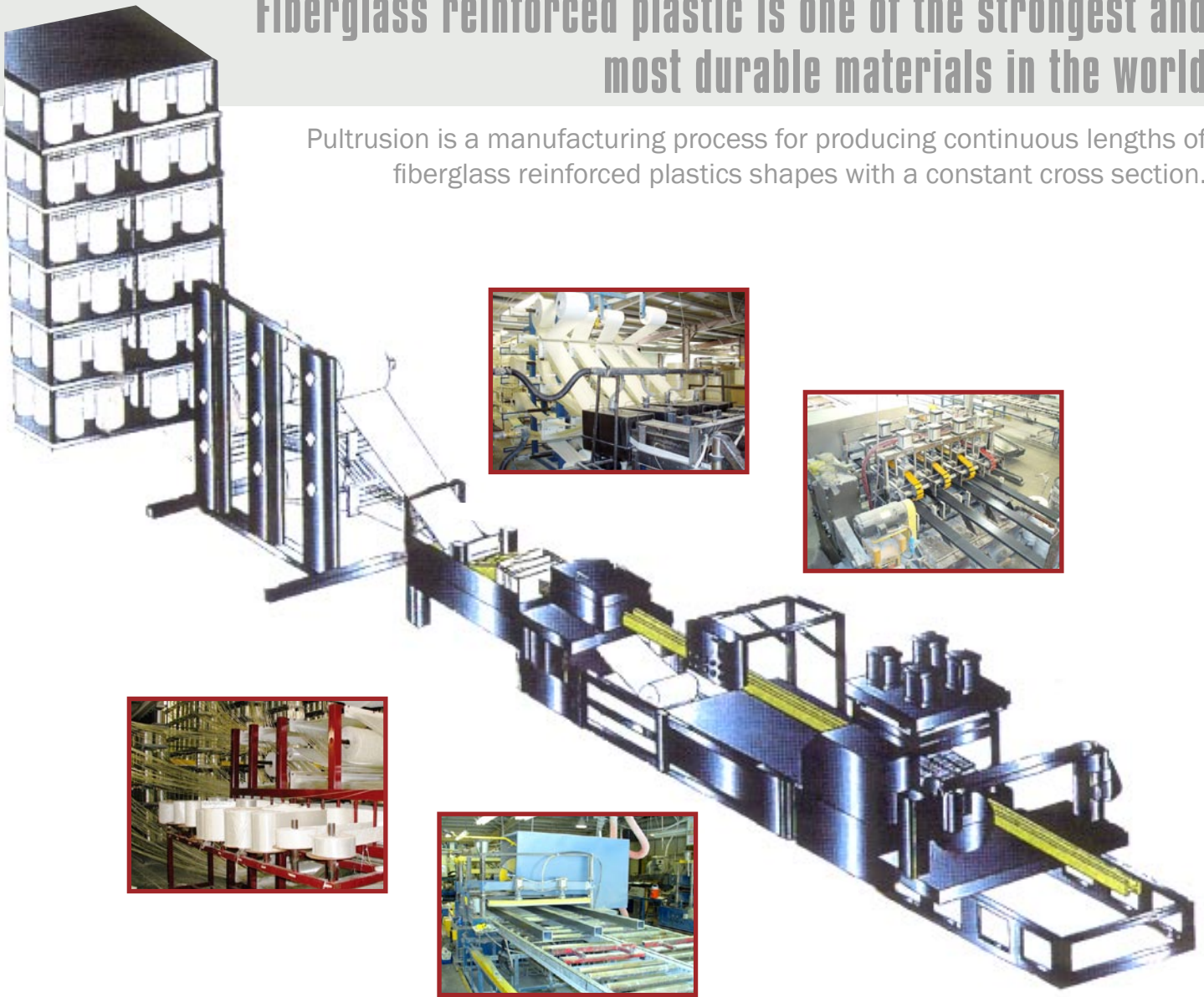
- Lightweight / High Strength
- Flame Retardant
- Electrically Non-Conductive
- Easy to Fabricate and Install
- Does Not Rust or Rot
- Lower Life Cycle Cost
- Non-Leeching
- Low Water Absorption
- High Impact Strength
- Dimensionally Stable
- Non-Corrosive

### Stocking Locations

- Bedford, PA
- Houston, TX

# Fiberglass reinforced plastic is one of the strongest and most durable materials in the world

Pultrusion is a manufacturing process for producing continuous lengths of fiberglass reinforced plastics shapes with a constant cross section.



**1** Creels of unidirectional roving provide longitudinal tensile strength or the strength along the length of the profile.

**2** Rolls of continuous filament mat, woven roving, or stitched fabric provide the profile with its transverse properties or its strength across the width of the profile.

**3** All reinforcements are first fed through pre-forming guides that will begin to shape the raw glass fibers in to the finished profile.

**4** The glass is then pulled into a resin bath that saturates or “wets out” the reinforcements.

**5** The resin bath contains a mixture of resin, most commonly polyester or vinylester, pigments to add color, filler to enhance properties, and a catalyst to aid in curing or to turn it from a liquid to a solid.

**6** Surfacing veil is added to give the profile a resin rich surface and enhance the appearance of the final product.

**7** The wet out reinforcements now enter the heated pultrusion die. The heat begins the thermosetting reaction process the cures the finished profile

**8** The cured profile is now advanced by a caterpillar style puller to the cut off saw where it will be cut to its final length.

**9** The finished product is now put into inventory at one of our warehouses, sent to our state of the art fabrication center for secondary processing, or crated for shipment to the customer.

# Product Availability List

## EQUAL ANGLES

Size in Inches	Lbs./Lin FT	STOCKED	NONSTOCKED
1 x 1/8	0.19	STD, FR, VE	
1 1/2 x 3/16	0.44	STD, FR	
1 1/2 x 1/4	0.54	STD, FR, VE	
2 x 1/4	0.74	STD, FR, VE	
3 x 1/4	1.12	STD, FR, VE	
3 x 3/8	1.64	STD, FR, VE	
3 x 1/2	2.09		
4 x 1/4	1.51	STD, FR, VE	
4 x 3/8	2.21	STD, FR, VE	
4 x 1/2	2.92	STD, FR, VE	
6 x 4 x 1/2**	3.65	STD, FR	
6 x 3/8**	3.34	STD, FR, VE	
6 x 1/2**	4.43	STD, FR, VE	

\*\*Stocked in FR 20' & 25'

## CHANNELS

2 x 9/16 x 1/8	0.28	STD, FR	
3 x 7/8 x 1/4	0.78	STD, FR,	
3 x 1 x 1/4	0.85	STD, FR, VE	
3 x 1 1/2 x 1/4	1.03	FR	
3 1/2 x 1 1/2 x 3/16*	0.92	STD, FR	
4 x 1 1/8 x 1/4	1.12	STD, FR, VE	
4 x 1 3/8 x 3/16	0.94	STD, FR	
5 x 1 3/8 x 1/4	1.47		
5 1/2 x 1 1/2 x 1/4*	1.52	STD, FR	
6 x 1 5/8 x 1/4	1.68	STD, FR, VE	
6 x 1 11/16 x 3/8	2.50	STD, FR, VE	
8 x 2 3/16 x 1/4*	2.27	STD	
8 x 2 3/16 x 3/8	3.31	STD, FR, VE	
10 x 2 3/4 x 1/2**	5.58	STD, FR, VE	
11 1/2 x 2 3/4 x 1/2	5.58		
12 x 3 x 1/2	6.35		
14 x 3 1/2 x 3/4	10.96		

\*Stocked in FR 24'

\*\*Stocked in FR 20' & 25'

## I-BEAM

3 1/2 x 1 1/2 x 3/16	1.12	FR	
4 x 2 x 1/4	1.58	STD, FR, VE	
5 1/2 x 2 x 1/4	2.03	FR	
6 x 3 x 1/4	2.52	STD, FR, VE	
6 x 3 x 3/8	3.53	FR, VE	
8 x 4 x 3/8	4.36	STD, FR, VE	
8 x 4 x 1/2**	5.79	FR, VE	
10 x 5 x 3/8	5.56		
10 x 5 x 1/2**	7.24	FR, VE	
12 x 6 x 1/2**	8.90	FR, VE	
18 x 3/8 x 4 1/2 x 1/2	8.55		
24 x 3/8 x 7 1/2 x 3/4	15.10		

\*\*Stocked in FR & VE 20' & 25'

## WF-BEAM

Size in Inches	Lbs./Lin FT	STOCKED	NONSTOCKED
3 x 3 x 1/4	1.71	STD, FR, VE	
4 x 4 x 1/4	2.36	STD, FR, VE	
6 x 6 x 1/4	3.48	STD, FR, VE	
6 x 6 x 3/8	5.21	STD, FR, VE	
8 x 8 x 3/8	6.78	FR, VE	
8 x 8 x 1/2**	8.78	FR, VE	
10 x 10 x 3/8	8.57		
10 x 10 x 1/2**	11.02	FR, VE	
12 x 12 x 1/2**	13.69	FR, VE	

\*\*Stocked in FR 20' & 25'

## FLAT SHEET

1/8 x 48 x 96*	1.30	STD, FR, VE	
3/16 x 48 x 96*	1.83	STD, FR, VE	
1/4 x 48 x 96*	2.42	STD, FR, VE	
3/8 x 48 x 96*	3.43	STD, FR, VE	
1/2 x 48 x 96	4.85	STD, FR, VE	
5/8 x 48 x 96	5.86		
3/4 x 48 x 96	6.82		
1 x 48 x 96	8.75		

\*144" Lengths also available in STD Resin only

## FLAT SHEET

2 1/2 x 3/16			
3 x 1/4			
3 x 3/8		FR	
3 x 1/2		FR	
4 x 1/8			
4 x 1/4			
4 x 1/2			
6 x 1/4			
6 x 1/2			
9 x 1/4			
10 x 1/4			
11 x 1/4			
12 x 1/4			
20 x 3/16			
20 x 1/4			
24 x 1/8			
24 x 1/4			

## FLAT BAR

5/8 x 1/4			
3/4 x 1/4			
1 x 1/8			
1 1/4 x 3/16			
1 3/4 x 1/4			
2 x 1/2			

## SQUARE BAR

1 x 1	0.81	STD WHITE	
1 1/4 x 1 1/4	1.71	STD YELLOW	
1 1/2 x 1 1/2	1.90	STD YELLOW	

## SQUARE TUBE

Size in Inches	Lbs./Lin FT	STOCKED	NONSTOCKED
1 x 1/8	0.34	STD, FR, VE	
1 1/4 x 1/8			
1 1/4 x 1/4	0.74		
1 1/2 x 1/8	0.55	STD, FR*, VE**	
1 1/2 x 1/4	0.98	FR*, VE**	
1 3/4 x 1/8	0.61	FR***, VE***	
1 3/4 x 1/4	1.13	FR*, VE***	
2 x 1/8	0.70	STD, FR*, VE**	
2 x 1/4	1.38	STD, FR*, VE**	
2 1/4 x 1/8	0.87	FR***	
2 1/4 x 1/4	1.67		
2 1/2 x 1/4	1.77	STD, FR	
3 x 1/8	1.09		
3 x 1/4	2.13	STD, FR, VE	
3 x 3/8	3.02		
3 1/2 x 1/4	2.59	STD, FR	
4 x 1/4	2.97	STD, FR, VE	
4 x 3/8	4.28	STD, FR	
6 x 1/4			
6 x 3/8	6.48	STD, FR	

## THREADED ROD & NUTS

3/8-16 UNC	0.09	VE GRAY	
1/2-13 UNC	0.14	VE GRAY	
5/8-11 UNC	0.23	VE GRAY	
3/4-10 UNC	0.33	VE GRAY	
1-8 UNC	0.50	VE GRAY	

Threaded Rod available in 48" & 96" lengths  
Square Nuts & Hex Head Nuts available

## EMBEDMENT ANGLE

1 x 1 1/2 x 1/4		VE GRAY	
1 1/2 x 1 1/2 x 1/4		VE GRAY	
2 x 1 1/2 x 1/4		VE GRAY	

## HANDRAIL CONNECTORS

4 1/4 x 1 1/4 Fixed	0.87	STD YELLOW	
4 1/2 x 1 1/2 Fixed	1.32	STD YELLOW	
4 1/4 x 1 1/4 Adjust.	0.87	STD YELLOW	
4 1/2 x 1 1/2 Adjust.	1.32	STD YELLOW	

## RECTANGULAR TUBE

4 x 1 x 1/8	0.92	FR	
4 x 1/8 x 2 x 1/4	1.52	STD, FR, VE	
4 x 2 x 1/4	1.58		
4 3/8 x 1 3/8 x 1/8 x 1/16			
5 x 2 x 1/8	1.24		
5 1/8 x 2 1/8 x 3/16	1.83		
6 x 4 x 1/4	3.77	FR*	
6 1/2 x 1/4 x 2 x 1/2	3.56		

\*Stocked in FR 20' & 25' lengths

## ROUND TUBE

Size in Inches	Lbs./Lin FT	STOCKED	NONSTOCKED
1 x .100			
1 x 1/8	0.28	STD, FR	
1 1/4 x 1/4	0.60		
1 1/2 x 1/8	0.39	STD, FR	
1 1/2 x 1/4	0.83	FR	
1 3/4 x 1/8	0.54		
1 3/4 x 1/4	0.93		
2 x 1/8	0.70		
2 x 1/4	1.06	STD, FR	
3 x .100	0.70		
3 x 1/4	1.72		
3 x 1/2	3.07	STD	
4.89 x 1/8	1.81		
4.89 x 3/16	2.97		

## SPECIAL SHAPES

<b>Door Frame</b>			
5 3/4 x 2 5/8 x 3/16	1.63	STD WHITE	

<b>Toe Plate</b>			
4 x 5/8 x 1/8		FR*, VE*	

<b>Ladder Rung</b>			
1.25 x .160		FR*, VE*	

<b>Threshold</b>			
5 1/2 x 1/4	1.07		

<b>Channel Flight/Gray</b>			
3 x 6 x 1/8 x 3/16	1.34	STD - Drk Gray	
3 x 8 x 1/8 x 3/16	1.48	STD - Drk Gray	

<b>Angle Flight/Gray</b>			
6 x 1/8 x 3 x 1/4			
8 x 1/8 x 3 x 1/4			

<b>12" Building Panel</b>			
12" x 1 25/32 x 3/32			

<b>Corner Column</b>			
7 27/32 x 7 27/32 x 3/8			

<b>Center Column</b>			
10 27/32 x 7 27/32 x 3/8			

<b>Deck Board</b>			
12 x 2 1/8 x 3/16**	2.93		
24 x 1 1/8 x various thickness**			
24 x 1 1/2 x .175**	5.49		

\* Stocked in FR & VE Yellow Only  
\*\* Deck Board is stocked in FR Dark Gray with and without Grit Top Surface

## ROD

1/8	0.01	STD	
3/16	0.02	STD	
1/4	0.04	STD	
5/16	0.07	STD	
3/8	0.10	STD, VE	
1/2	0.16	STD, VE	
5/8	0.26	STD, VE	
3/4	0.38	STD, VE	
7/8			
1	0.67	STD, VE	
1 1/4	0.99	STD	
1 1/2	1.51	STD, FR	
2			

**NOTE:** All Stock Lengths are 20' unless otherwise noted.

### Resin Series

STD - Standard Non Fire Retardant Polyester (Olive Green)

FR - Fire Retardant Polyester (Dark Gray & Yellow)

VE - Vinylester Fire Retardant (Beige & Yellow)

Solid Rod is stocked in STD White and VE Gray



