



## Your Plastic Experts

Piedmont Plastics® is your primary source for marine solutions. Complete all of your projects from block out panels to bulkheads with our line of substrates and accessories.

Piedmont carries a comprehensive assortment of the best brands and breadth of products to service your plastic needs. With over 45 years of marine industry experience, Piedmont is a leading supplier of plastic sheet, rod, tube, and film throughout North America.

### PMG® AquaSteel®

**Aqua-Steel® was formulated to be used where safety and mission critical backer plate applications require maximum holding power.**

This material is extremely strong and easy to process. Aqua-Steel® can be drilled and tapped when challenged with critical blind fasteners.

### Fastening Point Applications

- Bow Rails
- Swim Platforms
- Bow Eyes
- Trolling Motors
- Hard Tops
- T-Tops
- Blind Fasteners
- Engine Blocks
- Seat Mounts
- Cleats

### AquaSteel VS Aluminum

- Half the weight of aluminum
- Can be installed during lamination



### General MFG Tolerances

Thickness (.156 to .375)	± .020
Thickness (above .375 to 1.000)	± .030
CNC Shaped Size (Length - Width)	± .020
Drill Diameter	± .003
Drill Depth	± .020
CNC Hole to Hole	± .020
CNC Hole to Edge (1 Oper)	± .020
CNC Hole to Edge (2 Oper)	± .030
Routing - (Slots Width and Length)	± .015
Routing - (Slots Depth)	± .020

### Fire Test Data

Thickness	0.250"
Flame Spread Index - ASTM E84 (BLDG)	± .030
Smoke Developed Values - ASTM E84 (BLDG)	± .020
Fire Rating	B*

*\*Standard Product is Class B*

### Marine Specific Data

Soak	.75%
Swell	.57%
#14 Screw Retention (PSI)	5284
1/4"-20 Bolt Retention (PSI)	5923



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PROPERTY	3/8 INCH	1/2 INCH			
<b>FLEXURAL STRENGTH (ASTM D790)</b>					
MD (psi)	20,000	30,947			
CD (psi)	16,000	25,435			
<b>FLEXURAL MODULUS (ASTM D790)</b>					
MD (psi)	1,200,00	1,572,175			
CD (psi)	900,000	1,250,511			
<b>TENSILE MODULUS (ASTM D638)</b>					
MD (psi)	18,000	26,361			
CD (psi)	12,000	19,104			
COMPRESSION STRENGTH (ASTM D3410)	MAXIMUM COMPRESSIVE STRENGTH (PSI)	ULTIMATE COMPRESSIVE STRAIN (%)	CHORD MODULUS (0.1% - 0.3%) (PSI)	PERCENT BENDING AT 0.2% STRAIN (%)	PERCENT BENDING AT 6% STRAIN (%)
<b>1/4 INCH</b>					
Machine Direction	22100	13.0	2120000	1.31	3.17
Cross Direction	20100	13.6	1480000	1.52	4.34
PROPERTY	TEST	TEST REQUIREMENT	<b>THICKNESS</b>		
			3/8 INCH	1/2 INCH	
Water absorption	ASTM D570-98	< 2.5%	2.50%	N/A	
Soak data	-	< 2.5%	N/A	0.75%	
Swell data	-	< 2.5%	N/A	0.57%	
Resistance to boiling water	NEMA 3.5	No Effect	No Effect	No Effect	
Resistance to high temperature	NEMA 3.6	Slight Effect	No Effect	No Effect	
Ball impact resistance	NEMA 3.8	75"	90"+	N/A	
Wear resistance	NEMA 3.13	400 Cycle minimum	700 Cycle	N/A	
#14 Screw retention (PSI)	ASTM D6117-97	1,700	1700	5,284	
#14 Screw retention (LB)	-	-	N/A	1,482	
1/4" - 20 Bolt retention (PSI)	-	1,700	N/A	5,923	
1/4"- 20 Bolt retention (LB)	-	-	N/A	1,659	
<b>DIMENSIONAL CHANGE</b>					
Dimensional change: Length	NEMA 3.11	0.3% Maximum	0.25%	N/A	
Dimensional change: Width		0.7% Maximum	0.50%	N/A	
<b>WEIGHT PER UNIT AREA</b>					
Lbs/ft <sup>2</sup>	-	-	2.6 ± 0.08	3.46 ± 0.13	
Kg/m <sup>2</sup>	-	-	12.66 ± 0.45	16.88 ± 0.61	



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