



ACMA 3Q24 Pulse of the Industry Survey

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Compiled by Vault Consulting, LLC



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SUMMARY OF KEY FINDINGS:

-Expected increases in customer demand have eroded for the Infrastructure and Transportation markets since 2Q23. Infrastructure hit a low of 44% in 3Q24 after reaching a high of 68% in 2Q23, while Transportation went from 46% to 20% during the same timeframe.

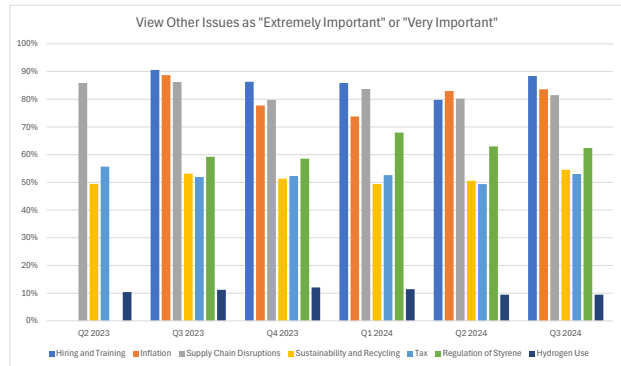
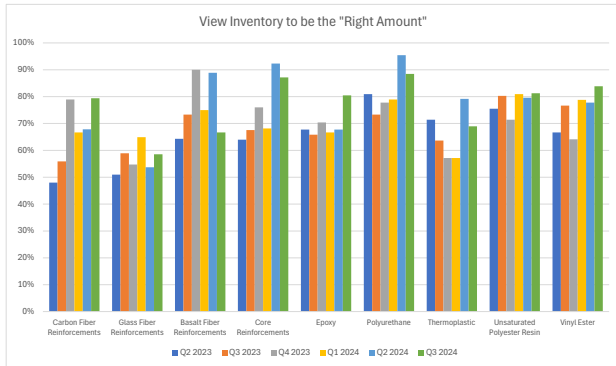
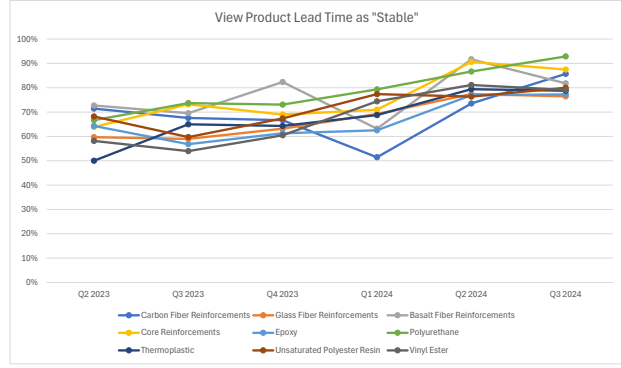
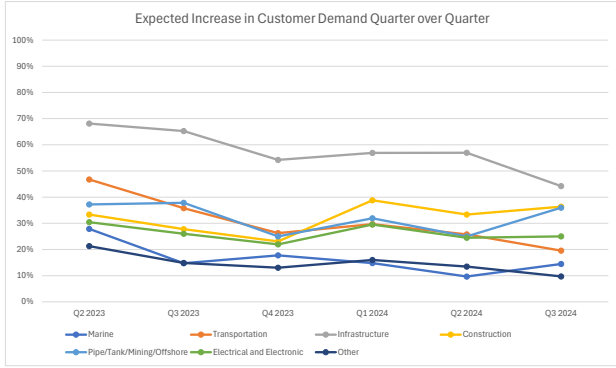
- 50% of respondents indicate that customer demand for the Marine market has decreased this quarter.

- While a large majority of respondents report product input lead times have been generally stable over time, these percentages have been relatively volatile. Only polyurethane has been consistently on the rise since 2Q23.

- Over 60% of respondents report product input inventory is at the "right amount" for all products in 3Q24 except glass fiber reinforcements, which is just under 60%. Rather, a third of total respondents report that inventory for GFR is high.

- Hiring & Training, Inflation and Supply Chain Disruption have consistently been the more important topics for respondents over the past year along with Regulation of Styrene albeit at lower levels.

Historical Trends



Expected Increase in Customer Demand Quarter over Quarter Survey Question:

What is the outlook for customer demand in North America in the current quarter compared to the prior quarter for the following markets? Please only answer for markets for which you have knowledge.

View Inventory to be the "Right Amount" Survey Question:

Using a scale of 1 to 5 where "1" means extremely low inventory, "3" means the right amount, and "5" means extremely high inventory, how do you view inventory for the following inputs? Please only answer for inputs for which you have knowledge.

View Product Lead Time as "Stable" Survey Question:

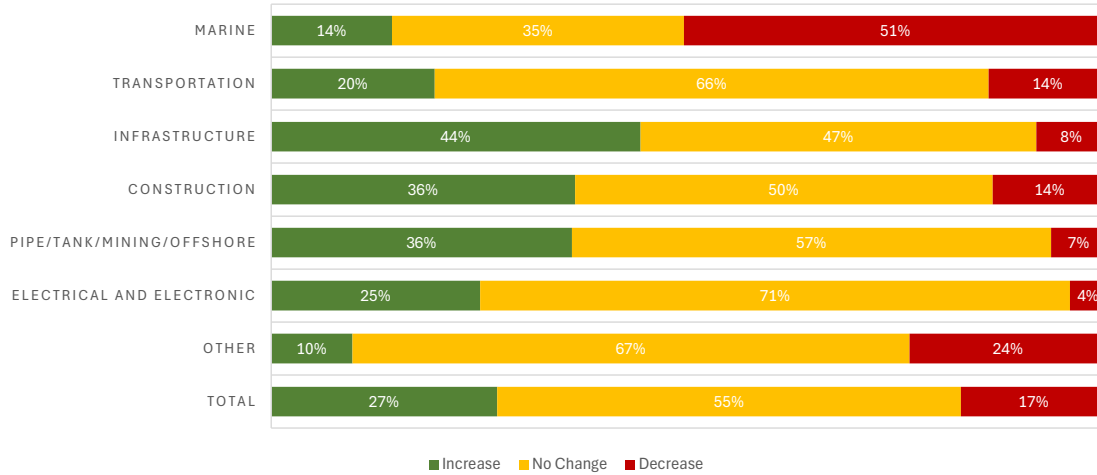
What is the current lead time for the following inputs? Please only answer for products for which you have knowledge.

View Other Issues as "Extremely Important" or "Very Important" Survey Question:

Based on what you have read and heard, how important do you consider each of the following issues to your company?

Customer Demand in Q3 2024 Compared with Q2 2024

CUSTOMER DEMAND BY MARKET CURRENT QUARTER VS PREVIOUS QUARTER



Overall Market			
Market	Increase	No Change	Decrease
Marine	14%	35%	51%
Transportation	20%	66%	14%
Infrastructure	44%	47%	8%
Construction	36%	50%	14%
Pipe/Tank/Mining/Offshore	36%	57%	7%
Electrical and Electronic	25%	71%	4%
Other	10%	67%	24%
Total	27%	55%	17%

Company Count	
	79
	88
	91
	84
	72
	65
	69
Total	112

Manufacturer			
Market	Increase	No Change	Decrease
Marine	15%	36%	49%
Transportation	17%	66%	17%
Infrastructure	37%	52%	12%
Construction	34%	49%	17%
Pipe/Tank/Mining/Offshore	29%	59%	12%
Electrical and Electronic	26%	71%	3%
Other	17%	62%	21%
Total	25%	56%	19%

Company Count	
	47
	58
	60
	53
	41
	38
	42
Total	74

Supplier / Distributor			
Market	Increase	No Change	Decrease
Marine	13%	28%	59%
Transportation	23%	67%	10%
Infrastructure	58%	39%	3%
Construction	39%	52%	10%
Pipe/Tank/Mining/Offshore	45%	55%	0%
Electrical and Electronic	22%	74%	4%
Other	0%	70%	30%
Total	29%	54%	17%

Company Count	
	32
	30
	31
	31
	31
	27
	27
Total	32

Affiliate			
Market	Increase	No Change	Decrease
Marine	25%	75%	0%
Transportation	25%	75%	0%
Infrastructure	50%	50%	0%
Construction	50%	50%	0%
Pipe/Tank/Mining/Offshore	33%	67%	0%
Electrical and Electronic	33%	33%	33%
Other	0%	100%	0%
Total	32%	64%	4%

Company Count
4
4
4
4
3
3
3
6

Small: 1 - 10 Employees			
Market	Increase	No Change	Decrease
Marine	25%	75%	0%
Transportation	25%	75%	0%
Infrastructure	33%	67%	0%
Construction	60%	20%	20%
Pipe/Tank/Mining/Offshore	33%	67%	0%
Electrical and Electronic	0%	67%	33%
Other	25%	75%	0%
Total	31%	62%	7%

Company Count
4
4
6
5
3
3
4
8

Medium: 11 - 100 Employees			
Market	Increase	No Change	Decrease
Marine	20%	53%	27%
Transportation	21%	64%	14%
Infrastructure	44%	44%	11%
Construction	38%	56%	6%
Pipe/Tank/Mining/Offshore	31%	54%	15%
Electrical and Electronic	33%	56%	11%
Other	27%	73%	0%
Total	31%	56%	13%

Company Count
15
14
18
16
13
9
11
21

Large: 101+ Employees			
Market	Increase	No Change	Decrease
Marine	13%	28%	59%
Transportation	19%	66%	15%
Infrastructure	45%	46%	8%
Construction	34%	51%	15%
Pipe/Tank/Mining/Offshore	37%	58%	5%
Electrical and Electronic	25%	73%	2%
Other	5%	65%	30%
Total	26%	55%	19%

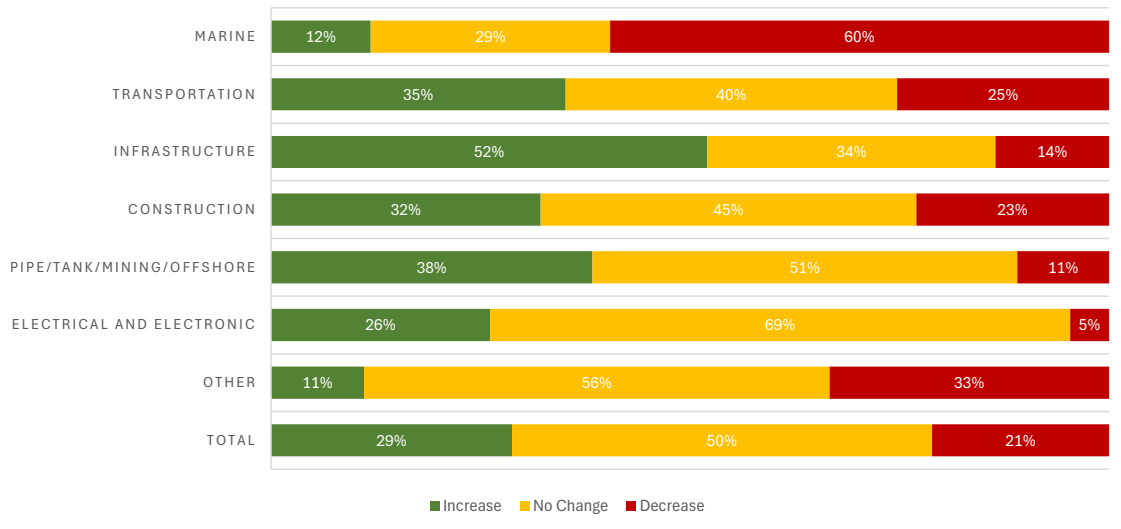
Company Count
64
74
71
67
59
56
57
83

Survey Question: What is the outlook for customer demand in North America in the current quarter compared to the prior quarter for the following markets? Please only answer for markets for which you have knowledge.

*Darker shading represents the higher responses by market segment. Shading does not represent statistical significance.

Customer Demand in North American Year Over Year

CUSTOMER DEMAND BY MARKET - 2024 VS 2023



Overall Market			
Market	Increase	No Change	Decrease
Marine	12%	29%	60%
Transportation	35%	40%	25%
Infrastructure	52%	34%	14%
Construction	32%	45%	23%
Pipe/Tank/Mining/Offshore	38%	51%	11%
Electrical and Electronic	26%	69%	5%
Other	11%	56%	33%
Total	29%	50%	21%

Company Count	
	80
	87
	92
	84
	70
	62
	69
Total	112

Manufacturer			
Market	Increase	No Change	Decrease
Marine	17%	31%	52%
Transportation	35%	39%	26%
Infrastructure	52%	35%	13%
Construction	31%	46%	22%
Pipe/Tank/Mining/Offshore	36%	51%	13%
Electrical and Electronic	29%	66%	5%
Other	19%	50%	31%
Total	32%	44%	24%

Company Count	
	48
	57
	60
	54
	39
	38
	42
Total	74

Supplier / Distributor			
Market	Increase	No Change	Decrease
Marine	3%	22%	75%
Transportation	30%	43%	27%
Infrastructure	53%	31%	16%
Construction	33%	40%	27%
Pipe/Tank/Mining/Offshore	42%	48%	10%
Electrical and Electronic	17%	79%	4%
Other	0%	63%	37%
Total	26%	45%	29%

Company Count	
	32
	30
	32
	30
	31
	24
	27
Total	32

Affiliate			
Market	Increase	No Change	Decrease
Marine	25%	50%	25%
Transportation	75%	25%	0%
Infrastructure	50%	50%	0%
Construction	33%	67%	0%
Pipe/Tank/Mining/Offshore	33%	67%	0%
Electrical and Electronic	67%	33%	0%
Other	0%	67%	33%
Total	42%	50%	8%

Company Count
4
4
4
3
3
3
3
6

Small: 1 - 10 Employees			
Market	Increase	No Change	Decrease
Marine	50%	25%	25%
Transportation	75%	25%	0%
Infrastructure	33%	50%	17%
Construction	60%	20%	20%
Pipe/Tank/Mining/Offshore	33%	67%	0%
Electrical and Electronic	67%	33%	0%
Other	25%	50%	25%
Total	48%	38%	14%

Company Count
4
4
6
5
3
3
4
8

Medium: 11 - 100 Employees			
Market	Increase	No Change	Decrease
Marine	19%	44%	38%
Transportation	36%	57%	7%
Infrastructure	42%	42%	16%
Construction	44%	38%	19%
Pipe/Tank/Mining/Offshore	31%	54%	15%
Electrical and Electronic	22%	67%	11%
Other	30%	70%	0%
Total	33%	51%	16%

Company Count
16
14
19
16
13
9
10
21

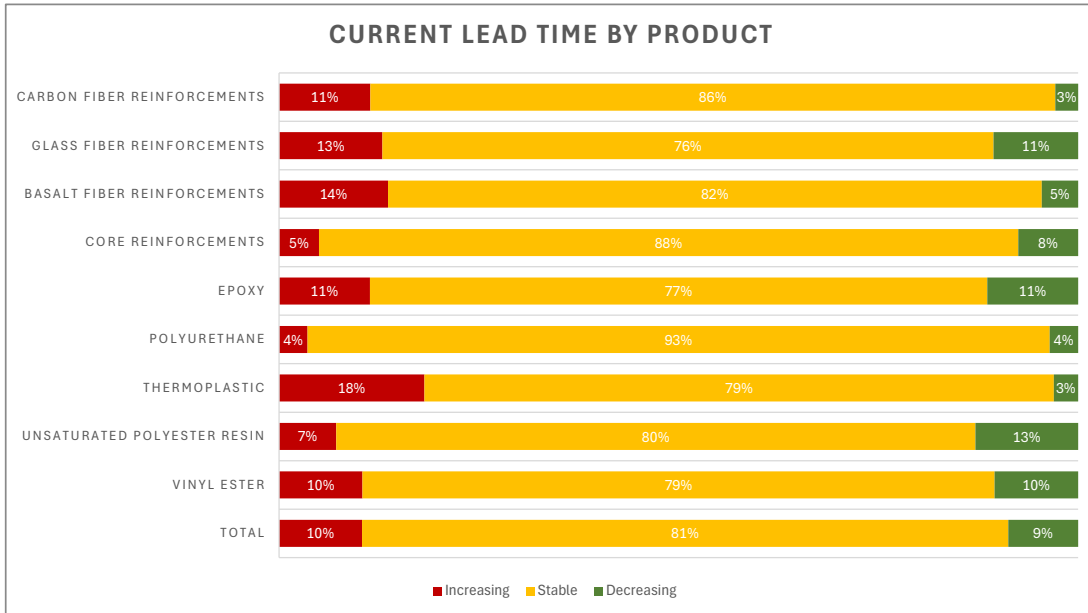
Large: 101+ Employees			
Market	Increase	No Change	Decrease
Marine	8%	25%	67%
Transportation	33%	37%	30%
Infrastructure	56%	31%	13%
Construction	27%	48%	24%
Pipe/Tank/Mining/Offshore	40%	49%	11%
Electrical and Electronic	25%	72%	4%
Other	7%	53%	40%
Total	29%	44%	27%

Company Count
64
73
71
66
57
53
58
83

Survey Question: What is the outlook for customer demand in North America in 2024 compared to 2023 in the following markets? Please only answer for markets for which you have knowledge.

*Darker shading represents the higher responses by market segment. Shading does not represent statistical significance.

Current Product Lead Time



Overall			
Product	Increasing	Stable	Decreasing
Carbon Fiber Reinforcements	11%	86%	3%
Glass Fiber Reinforcements	13%	76%	11%
Basalt Fiber Reinforcements	14%	82%	5%
Core Reinforcements	5%	88%	8%
Epoxy	11%	77%	11%
Polyurethane	4%	93%	4%
Thermoplastic	18%	79%	3%
Unsaturated Polyester Resin	7%	80%	13%
Vinyl Ester	10%	79%	10%
Total	10%	81%	9%

Company Count
33
83
20
38
42
26
31
68
65
100

Manufacturer			
Product	Increasing	Stable	Decreasing
Carbon Fiber Reinforcements	17%	83%	0%
Glass Fiber Reinforcements	15%	77%	8%
Basalt Fiber Reinforcements	0%	90%	10%
Core Reinforcements	7%	86%	7%
Epoxy	17%	73%	10%
Polyurethane	0%	100%	0%
Thermoplastic	23%	73%	5%
Unsaturated Polyester Resin	9%	80%	11%
Vinyl Ester	14%	77%	9%
Total	12%	80%	8%

Company Count
18
61
10
28
30
17
22
46
43
67

Supplier / Distributor			
Product	Increasing	Stable	Decreasing
Carbon Fiber Reinforcements	7%	87%	7%
Glass Fiber Reinforcements	9%	73%	18%
Basalt Fiber Reinforcements	30%	70%	0%
Core Reinforcements	0%	90%	10%
Epoxy	0%	83%	17%
Polyurethane	11%	78%	11%
Thermoplastic	11%	89%	0%
Unsaturated Polyester Resin	5%	77%	18%
Vinyl Ester	5%	82%	14%
Total	8%	80%	12%

Company Count
15
22
10
10
12
9
9
22
22
31

Affiliate			
Product	Increasing	Stable	Decreasing
Carbon Fiber Reinforcements	0%	100%	0%
Glass Fiber Reinforcements	0%	100%	0%
Basalt Fiber Reinforcements	0%	100%	0%
Core Reinforcements	0%	100%	0%
Epoxy	0%	100%	0%
Polyurethane	0%	100%	0%
Thermoplastic	0%	100%	0%
Unsaturated Polyester Resin	0%	100%	0%
Vinyl Ester	0%	100%	0%
Total	0%	100%	0%

Company Count
2
2
2
2
2
2
2
2
2
2

Small: 1 - 10 Employees			
Product	Increasing	Stable	Decreasing
Carbon Fiber Reinforcements	0%	100%	0%
Glass Fiber Reinforcements	50%	25%	25%
Basalt Fiber Reinforcements	0%	100%	0%
Core Reinforcements	0%	67%	33%
Epoxy	33%	67%	0%
Polyurethane	0%	100%	0%
Thermoplastic	0%	50%	50%
Unsaturated Polyester Resin	50%	50%	0%
Vinyl Ester	33%	33%	33%
Total	24%	57%	19%

Company Count
2
4
1
3
3
1
2
2
3
4

Medium: 11-100 Employees			
Product	Increasing	Stable	Decreasing
Carbon Fiber Reinforcements	33%	67%	0%
Glass Fiber Reinforcements	13%	81%	6%
Basalt Fiber Reinforcements	0%	100%	0%
Core Reinforcements	10%	80%	10%
Epoxy	14%	71%	14%
Polyurethane	17%	83%	0%
Thermoplastic	50%	50%	0%
Unsaturated Polyester Resin	21%	79%	0%
Vinyl Ester	33%	67%	0%
Total	20%	76%	4%

Company Count
6
16
4
10
7
6
4
14
12
18

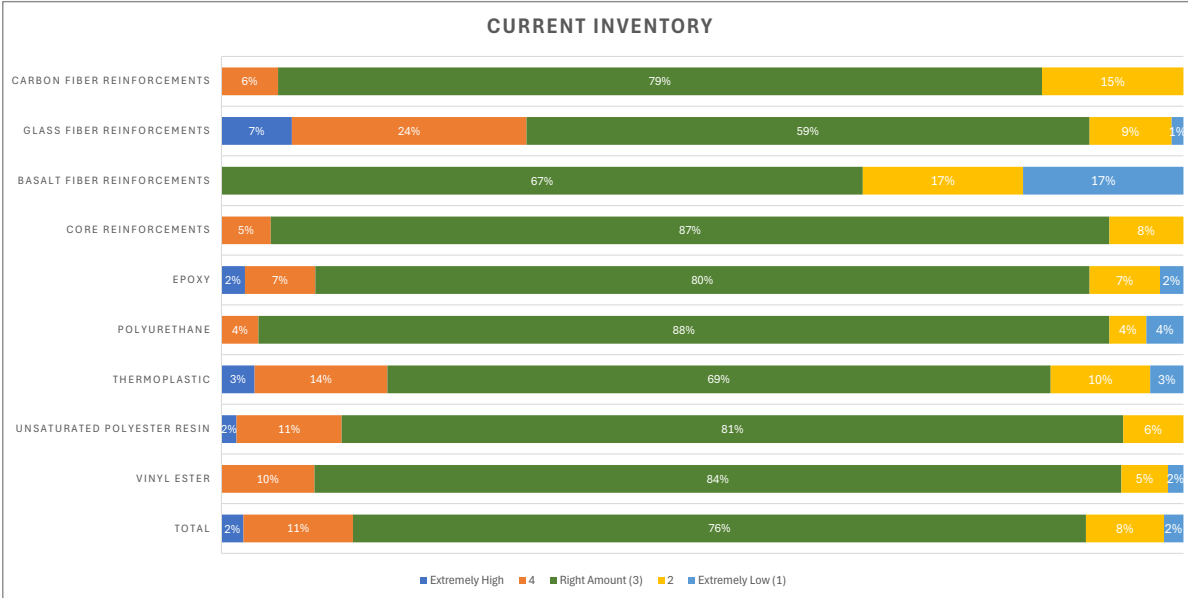
Large: 101+ Employees			
Product	Increasing	Stable	Decreasing
Carbon Fiber Reinforcements	7%	89%	4%
Glass Fiber Reinforcements	11%	78%	11%
Basalt Fiber Reinforcements	18%	76%	6%
Core Reinforcements	4%	93%	4%
Epoxy	9%	79%	12%
Polyurethane	0%	95%	5%
Thermoplastic	15%	85%	0%
Unsaturated Polyester Resin	2%	81%	17%
Vinyl Ester	4%	85%	12%
Total	7%	84%	9%

Company Count
27
65
17
27
34
21
27
54
52
78

Survey Question: What is the current lead time for the following inputs? Please only answer for products for which you have knowledge.

*Darker shading represents the higher responses by market segment. Shading does not represent statistical significance.

Current Inventory



Overall					
Product	Extremely High	4	Right Amount (3)	2	Extremely Low (1)
Carbon Fiber Reinforcements	0%	6%	79%	15%	0%
Glass Fiber Reinforcements	7%	24%	59%	9%	1%
Basalt Fiber Reinforcements	0%	0%	67%	17%	17%
Core Reinforcements	0%	5%	87%	8%	0%
Epoxy	2%	7%	80%	7%	2%
Polyurethane	0%	4%	88%	4%	4%
Thermoplastic	3%	14%	69%	10%	3%
Unsaturated Polyester Resin	2%	11%	81%	6%	0%
Vinyl Ester	0%	10%	84%	5%	2%
Total	2%	11%	76%	8%	2%

Company Count
34
82
18
39
41
26
29
64
62
100

*Total based on Manufacturer and Supplier / Distributor responses only.

Manufacturer					
Product	Extremely High	4	Right Amount (3)	2	Extremely Low (1)
Carbon Fiber Reinforcements	0%	0%	82%	18%	0%
Glass Fiber Reinforcements	2%	18%	69%	10%	2%
Basalt Fiber Reinforcements	0%	0%	70%	10%	20%
Core Reinforcements	0%	3%	90%	7%	0%
Epoxy	3%	7%	80%	7%	3%
Polyurethane	0%	0%	94%	0%	6%
Thermoplastic	5%	14%	67%	10%	5%
Unsaturated Polyester Resin	0%	7%	84%	9%	0%
Vinyl Ester	0%	7%	83%	7%	2%
Total	1%	8%	79%	9%	3%

Company Count
22
61
10
30
30
18
21
43
41
69

Supplier / Distributor					
Product	Extremely High	4	Right Amount (3)	2	Extremely Low (1)
Carbon Fiber Reinforcements	0%	17%	75%	8%	0%
Glass Fiber Reinforcements	24%	43%	29%	5%	0%
Basalt Fiber Reinforcements	0%	0%	63%	25%	13%
Core Reinforcements	0%	11%	78%	11%	0%
Epoxy	0%	9%	82%	9%	0%
Polyurethane	0%	13%	75%	13%	0%
Thermoplastic	0%	13%	75%	13%	0%
Unsaturated Polyester Resin	5%	19%	76%	0%	0%
Vinyl Ester	0%	14%	86%	0%	0%
Total	5%	18%	69%	7%	1%

Company Count
12
21
8
9
11
8
8
21
21
31

Affiliate					
Product	Extremely High	4	Right Amount (3)	2	Extremely Low (1)
Carbon Fiber Reinforcements	0%	0%	100%	0%	0%
Glass Fiber Reinforcements	0%	0%	100%	0%	0%
Basalt Fiber Reinforcements	0%	0%	100%	0%	0%
Core Reinforcements	0%	0%	100%	0%	0%
Epoxy	0%	0%	100%	0%	0%
Polyurethane	0%	0%	100%	0%	0%
Thermoplastic	0%	0%	100%	0%	0%
Unsaturated Polyester Resin	0%	0%	100%	0%	0%
Vinyl Ester	0%	0%	100%	0%	0%
Total	0%	0%	100%	0%	0%

Company Count
2
2
2
2
2
2
2
2
2
2
2

Small: 1 - 10 Employees					
Product	Extremely High	4	Right Amount (3)	2	Extremely Low (1)
Carbon Fiber Reinforcements	0%	0%	67%	33%	0%
Glass Fiber Reinforcements	0%	0%	67%	33%	0%
Basalt Fiber Reinforcements	0%	0%	50%	0%	50%
Core Reinforcements	0%	0%	67%	33%	0%
Epoxy	0%	0%	100%	0%	0%
Polyurethane	0%	0%	100%	0%	0%
Thermoplastic	0%	0%	100%	0%	0%
Unsaturated Polyester Resin	0%	0%	100%	0%	0%
Vinyl Ester	0%	0%	100%	0%	0%
Total	0%	0%	81%	14%	5%

Company Count
3
3
2
3
3
1
1
2
3
4

Medium: 11 - 100 Employees					
Product	Extremely High	4	Right Amount (3)	2	Extremely Low (1)
Carbon Fiber Reinforcements	0%	0%	67%	33%	0%
Glass Fiber Reinforcements	13%	7%	67%	13%	0%
Basalt Fiber Reinforcements	0%	0%	75%	0%	25%
Core Reinforcements	0%	0%	89%	11%	0%
Epoxy	0%	0%	83%	17%	0%
Polyurethane	0%	0%	83%	17%	0%
Thermoplastic	0%	0%	25%	50%	25%
Unsaturated Polyester Resin	8%	8%	83%	0%	0%
Vinyl Ester	0%	18%	73%	9%	0%
Total	4%	5%	74%	14%	3%

Company Count
6
15
4
9
6
6
4
12
11
18

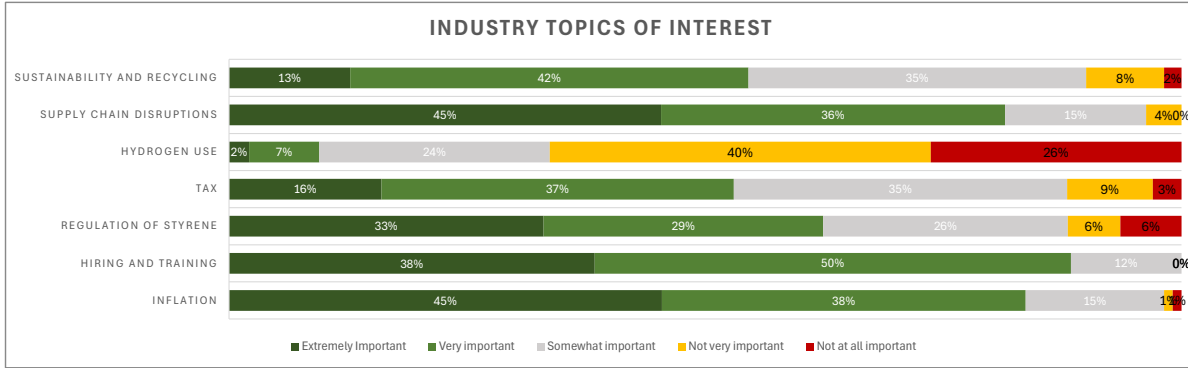
Large: 101+ Employees					
Product	Extremely High	4	Right Amount (3)	2	Extremely Low (1)
Carbon Fiber Reinforcements	0%	7%	85%	7%	0%
Glass Fiber Reinforcements	6%	29%	58%	6%	2%
Basalt Fiber Reinforcements	0%	0%	71%	21%	7%
Core Reinforcements	0%	7%	90%	3%	0%
Epoxy	3%	9%	79%	6%	3%
Polyurethane	0%	5%	90%	0%	5%
Thermoplastic	4%	15%	77%	4%	0%
Unsaturated Polyester Resin	0%	12%	81%	8%	0%
Vinyl Ester	0%	8%	86%	4%	2%
Total	2%	13%	78%	6%	2%

Company Count
27
66
14
29
34
21
26
52
50
80

Survey Question: Using a scale of 1 to 5 where "1" means extremely low inventory, "3" means the right amount, and "5" means extremely high inventory, how do you view inventory for the following inputs? Please only answer on products for which you have knowledge.

*Darker shading represents the higher responses by market segment. Shading does not represent statistical significance.

Industry Topics of Interest



Top Two Topics of Interest

Topic	Percent Very or Extremely Important
Hiring and Training	21.11%
Inflation	19.62%

*Top Two Topics calculated as the highest percentage of very or extremely important topics out of all very or extremely important responses.

Overall					
Topic	Extremely Important	Very important	Somewhat important	Not very important	Not at all important
Sustainability and Recycling	13%	42%	35%	8%	2%
Supply Chain Disruptions	45%	36%	15%	4%	0%
Hydrogen Use	2%	7%	24%	40%	26%
Tax	16%	37%	35%	9%	3%
Regulation of Styrene	33%	29%	26%	6%	6%
Hiring and Training	38%	50%	12%	0%	0%
Inflation	45%	38%	15%	1%	1%

Company Count
110
108
95
100
109
112
110

Manufacturer					
Topic	Extremely Important	Very important	Somewhat important	Not very important	Not at all important
Sustainability and Recycling	11%	39%	38%	9%	3%
Supply Chain Disruptions	49%	32%	14%	5%	0%
Hydrogen Use	2%	10%	25%	35%	29%
Tax	19%	37%	34%	7%	3%
Regulation of Styrene	34%	26%	26%	5%	8%
Hiring and Training	45%	42%	14%	0%	0%
Inflation	49%	35%	16%	0%	0%

Company Count
74
73
63
68
73
74
74

Supplier / Distributor					
Topic	Extremely Important	Very important	Somewhat important	Not very important	Not at all important
Sustainability and Recycling	20%	50%	27%	3%	0%
Supply Chain Disruptions	42%	42%	16%	0%	0%
Hydrogen Use	4%	4%	18%	54%	21%
Tax	7%	41%	38%	14%	0%
Regulation of Styrene	34%	34%	25%	3%	3%
Hiring and Training	26%	65%	10%	0%	0%
Inflation	39%	45%	10%	3%	3%

Company Count
30
31
28
29
32
31
31

Affiliate					
Topic	Extremely Important	Very important	Somewhat important	Not very important	Not at all important
Sustainability and Recycling	0%	33%	50%	17%	0%
Supply Chain Disruptions	0%	75%	25%	0%	0%
Hydrogen Use	0%	0%	50%	25%	25%
Tax	33%	0%	33%	0%	33%
Regulation of Styrene	0%	50%	25%	25%	0%
Hiring and Training	29%	71%	0%	0%	0%
Inflation	40%	40%	20%	0%	0%

Company Count
6
4
4
3
4
7
5

Small: 1 - 10 Employees					
Topic	Extremely Important	Very important	Somewhat important	Not very important	Not at all important
Sustainability and Recycling	0%	25%	38%	25%	13%
Supply Chain Disruptions	43%	29%	14%	14%	0%
Hydrogen Use	0%	0%	29%	14%	57%
Tax	33%	17%	33%	0%	17%
Regulation of Styrene	0%	43%	14%	29%	14%
Hiring and Training	33%	56%	11%	0%	0%
Inflation	50%	25%	25%	0%	0%

Company Count
8
7
7
6
7
9
8

Medium: 11 - 100 Employees					
Topic	Extremely Important	Very important	Somewhat important	Not very important	Not at all important
Sustainability and Recycling	11%	32%	37%	21%	0%
Supply Chain Disruptions	42%	32%	26%	0%	0%
Hydrogen Use	7%	0%	13%	53%	27%
Tax	21%	42%	32%	5%	0%
Regulation of Styrene	32%	37%	21%	11%	0%
Hiring and Training	40%	50%	10%	0%	0%
Inflation	60%	30%	5%	0%	5%

Company Count
19
19
15
19
19
20
20

Large: 101+ Employees					
Topic	Extremely Important	Very important	Somewhat important	Not very important	Not at all important
Sustainability and Recycling	14%	46%	35%	4%	1%
Supply Chain Disruptions	46%	38%	12%	4%	0%
Hydrogen Use	1%	10%	26%	40%	23%
Tax	13%	37%	36%	11%	3%
Regulation of Styrene	36%	27%	28%	2%	7%
Hiring and Training	39%	49%	12%	0%	0%
Inflation	41%	41%	16%	1%	0%

Company Count
83
82
73
75
83
83
82

Survey Question: Based on what you have read and heard, how important do you consider each of the following issues to your company?

*Darker shading represents the higher responses by market segment. Shading does not represent statistical significance.

Other Industry Topics of Interest

Topic	Count
Impact of subsidized Chinese exports of raw material and FRP parts	1
Geopolitical risks	1
Election Year	2
Tariffs	1

Survey Question: Based on what you have read and heard, how important do you consider each of the following issues to your company? - Other (Specify) - Text

BACKGROUND:

Purpose:

The purpose of the survey is to gauge perceptions about how the composites industry is performing over time. Published data from the survey will allow members to assess how their company's markets and inputs are trending relative to the overall composites industry; and enable ACMA to identify hot topics in the composites industry for which the association should be engaged on behalf of its members.

ACMA will also use the survey to gauge the perceived value of association membership and identify any strengths and areas for improvement.

Survey Objectives:

To assess perceptions of end market segments over the next quarter and next 9 months
To determine the size of composites inputs inventory
To identify issues that members perceive to be important in the composites industry

Survey Methodology:

The survey is conducted on a **quarterly** basis among members of ACMA.
The survey takes approximately **5 minutes** to complete and remain in the field for roughly two weeks.
Vault Consulting will distribute the survey each quarter and will be responsible for collecting, aggregating, and reporting results each quarter. Reports will be published roughly two weeks after fieldwork closes.

Sample sizes for the current quarter were as follows:

Total Respondents 113
Manufacturers 74
Supplier/Distributor 32
Affiliates 7

Data collection was conducted between 6/7/2024 - 6/21/2024.

For more information on this survey or how to participate please contact Paige Patterson at ppatterson@acmanet.org