

## SUSTAINABLE

# **COMPOSITE SOLUTIONS**

DELIVERED

AIT Composites GDeck™ is a pultruded FRP decking product that eliminates the need for a concrete deck on a buried arch structure. We utilize advanced composite materials to create a durable, strong, lightweight, corrugated FRP deck. This robust decking efficiently supports heavy loads.

- Can be manufactured to any length, and is easily attached with self-drilling screws
- GDeck™ exceeds competitors standards by utilizing an improved resin system that provides higher durability, UV protection, and better alkali resistance characteristics.

#### **Benefits**



#### 100+ Year Service Life

 AIT Composites FRP GDeck™ is corrosion resistant which aids in designing a structure with a much longer service life than steel or concrete decking.

#### Significant Weight Savings & Exceptional Strength

GDeck™ mechanical properties are one step ahead of alternative solutions.

### **Applications / Data**

**Test Setup** 



		Deflection		
	Load @ First	@ First Load	Peak Load,	Deflection @
Sample #	Load Drop, lb:	Drop, lb:	lb:	Peak Load, in
1	12,828	-0.285	20,718	-0.620
2	13,267	-0.303	23,251	-0.763
3	15,931	-0.428	21,034	-0.971
4	16,147	-0.572	16,918	-0.620
5	12,575	-0.260	21,957	-0.733
6	16,019	-0.447	22,958	-0.804
7	11,243	-0.206	20,136	-0.608
8	11,147	-0.219	25,755	-0.685
9	14,646	-0.381	24,522	-0.942
10	10,101	-0.231	24,566	-1.113
# of Specimens:	10	10	10	10
Mean Value:	13,390	-0.333	22,181	-0.786
St. Dev.:	2,211	0.120	2,605	0.172
COV:	0.160	0.464	0.110	0.229
Data confidence factor:	0.839	0.569	0.889	0.772
Nominal value:	9,554	-0.594	17,746	-0.472
Characteristic value:	8,016	-0.338	15,779	-0.364







GDeck<sup>™</sup> is designed to support:

**Transportation Structures** 

Saltwater Environments

Freshwater Environments

Product Data Sheet | GDeck™ NOV 2021



