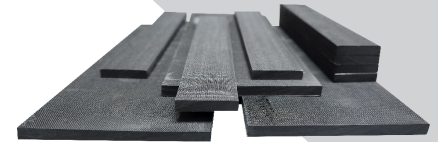




CARBON BAR™
HIGH STRENGTH - LIGHT WEIGHT



Made with

DowAksa XSpar™ Pultruded Laminate TDS

XSpar™ is a carbon fiber reinforced polyurethane pultruded laminate profile. The laminate is made with unidirectional carbon fiber, resulting in extraordinary linear properties. The stock material comes in at 4.9mm (0.193") thick, 120mm (4.72") wide, and up to 100m (300 ft) in length.

XSpar™ is designed for structural strength in infrastructure, construction, marine, transportation, and other applications. This profile provides excellent mechanical properties resulting in a lightweight, durable material for structural and functional purposes.



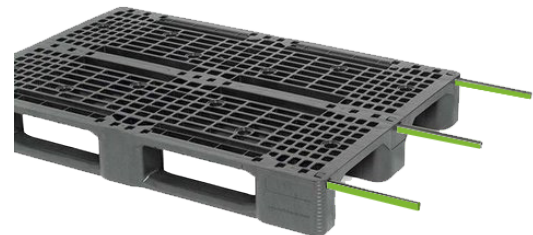
Characteristics

- High strength and stiffness
- Lightweight
- Exceptional corrosion resistance
- Low moisture absorbance
- Machinable
- Adjustable product size
 - 1ft – 300ft (coiled) in length
 - 0.25m – 100m in length
 - .375" – 4.72" in width
 - 10mm – 120mm in width



Packaging/Shipping

- XSpar™ is typically shipped by crate
- XSpar™ can also be coiled and shipped by pallet
- Protective gloves are recommended while handling material
 - Can be sanded down for smooth surface finish



Representative Properties

Parameter	Value	Unit	Value	Unit
Matrix	Polyurethane			
Fiber	High Strength Carbon Fiber			
Fiber Orientation	Longitudinal			
Appearance*	Black			
Length**	Max: 100	m	Max: 300	ft
Width**	Min: 10 ; Max: 120	mm	Min: 0.38 ; Max: 4.72	in
Thickness	4.9	mm	0.193	in
Moisture Retention @60 days	1	%		
Density	1.6	g/cm ³	99.88	lb/ft ³
Tensile Strength	1500	MPa	218	Ksi
Tensile Modulus	160	GPa	23206	Ksi
Compressive Strength	1100	MPa	160	Ksi
Compressive Modulus	142	GPa	20595	Ksi
Flex Modulus	136	GPa	19725	Ksi

* Appearance may Change ** Length and Width may be changed as per customer request