



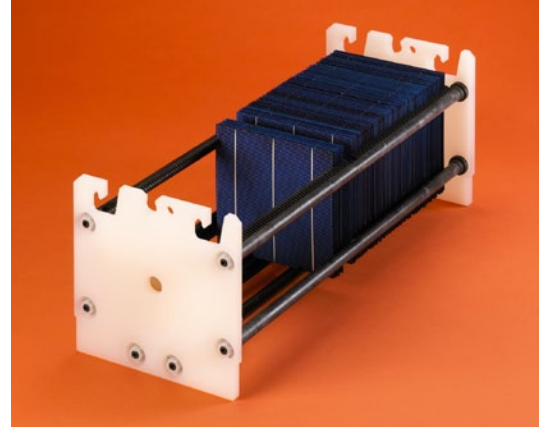
SOLAR CELL WET PROCESS CARRIER

Improved minority carrier lifetime and cell yields

Overview

Entegris has combined more than 40 years of experience in handling critical substrates with user input to create the solar cell wet process carrier. Used in etch, cleaning and texturing applications, this 100-capacity carrier offers a cleaner batch process with fewer cell defects.

Improve your minority carrier lifetime with a high-performance process carrier. A proprietary tooth design prevents residual fluid from gathering in between the cell and tooth providing you with reduced marks and defects. In addition, a patented molding process encapsulates the stainless steel wafer support rods preventing metal contaminants in your processes. Built for strength and durability, the wafer support rod offers you longer process carrier life.



Features and Benefits

Features	Benefits
Proprietary tooth design minimizes fluid traps	Improved process throughput and yield
Patented overmolding technique covers all stainless steel, leaving no external exposure	Cleaner process baths improve cell yield and minority carrier lifetime
PVDF base polymer offers excellent resistance to bath chemicals	Long-lasting carrier life
Carbon fiber filler in PVDF minimizes thermal expansion	Improved equipment interoperability through carrier's dimensional stability
Custom machined end walls fit wide variety of equipment requirements	Compatible with multiple automated machines
Optional retaining bar stabilizes cells within the carrier	Improved process control

Specifications

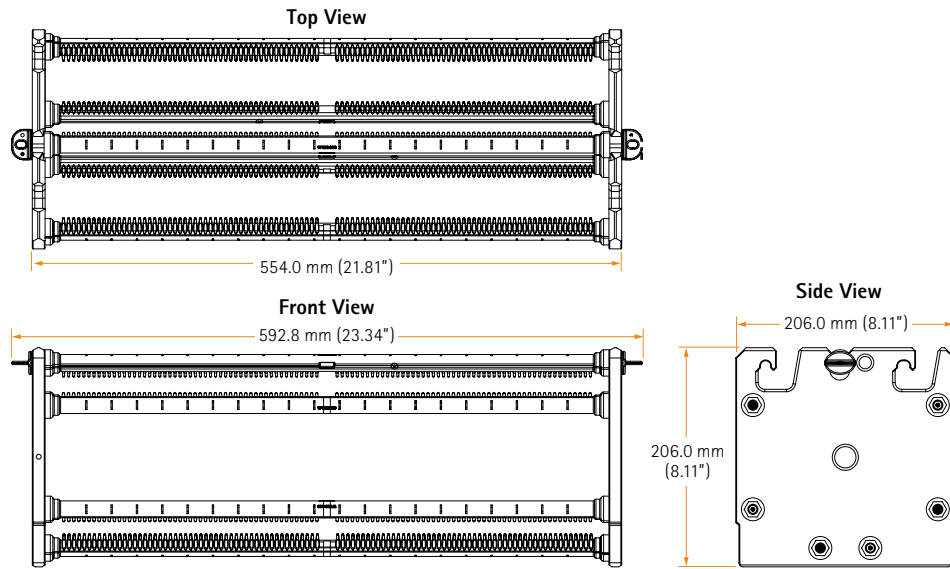
Materials of construction:	End wall	PVDF
	Wafer supports	Carbon fiber-filled PVDF, stainless steel core
Dimensions:	Width – 206 mm (8.11"); Length – 554 mm (21.81"); Height – 206 mm (8.11")	
	Pitch (center to center of tooth)	4.76 mm (0.187")
Weight:	Without cells	4147 g (9.14 lb)
	With cells	5375 g (11.8 lb)
	Optional wafer retainer (retainer only)	458 g (1.01 lb)
Orientation:	Horizontal or vertical	
Maximum temperature:	80°C (176°F)	
Patent:	Pending	

Performance Testing

Over a nine month period, Entegris has worked closely with a key solar cell manufacturer to test various aspects of the wet process carrier design. A proprietary tooth profile was developed through continuous improvement testing on R&D and production wet benches. Additional product

testing was conducted “down stream” of the wet process to verify dimensional integrity of cell locations, carrier interface points and RFID readability. These tests included compatibility testing in diffusion furnaces, stack splitters and ion implant tools.

Dimensions



End walls can be customized to fit virtually all equipment configurations.

Ordering Information

Part Number	Description
WPC156-ST110-1	156 mm wet process carrier, 100-capacity

For More Information

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit www.entegris.com and select the Customer Service link for the center nearest you.

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