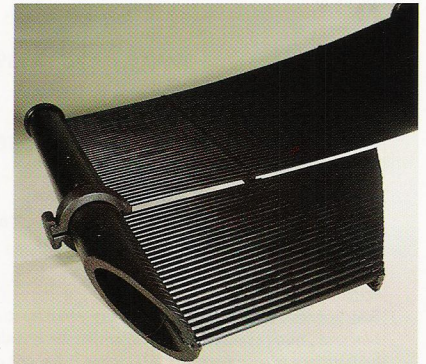


TECHNICAL INFORMATION & SPECIFICATIONS

The HELIOCOL Solar Collector is the most advanced pool heating panel on the market today. In continuous production since 1977 by the world's largest solar pool collector manufacturer, HELIOCOL has a proven track record of durability, performance and design excellence.

Heliocol's Unique Technical Features:

- Patented Individual Tube Design allows for expansion and contraction eliminating cracks and leaks
- One piece "over molded" construction eliminates welds
- No moisture build-up under collectors
- Innovative mounting hardware eliminates need for radiator hoses, metal clamps and multiple straps across the collectors
- Designed to withstand Hurricane force winds
- Low collector head loss rate reduces pump requirements



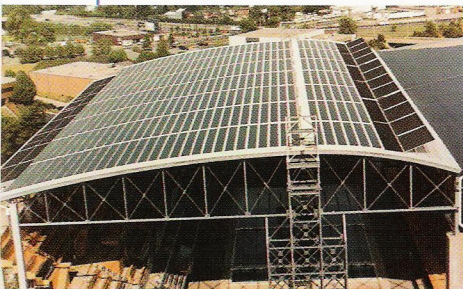
Certification Data:

Ortech International Laboratories
 Solar Rating and Certification Corporation (SRCC)
 Solar Energy Analysis Laboratory (SEAL)
 DSET Laboratories, Inc.
 HRS, Florida (Required for Commercial Use)
 Dade County, Florida
 Miami Testing Laboratory

Florida Solar Energy Center (FSEC)
 City of Los Angeles #RR-4508
 British National Water Council (for potability)
 German Federal Health Board
 Israeli Technical Institute
 Standard Installation Corporation of Israel
 IAPMO #S-3053

Collector Data:

Collector Model	HC-50		HC-40		HC-30		HC-12.5	HC-10
Size, Nominal	4'x12.5'		4'x10.5'		4'x8'		1'x12.5'	1'x10.5'
Width	47"	120 cm	47"	120 cm	47"	120 cm	11.75"	11.75"
Length	152.1"	380 cm	127"	323 cm	91"	231 cm	151.5"	127"
Area (sq. ft.)	50.0	4.65 m ²	41.6	3.88 m ²	30.0	2.77 m ²	12.2	10.2
Manifold Diameter	2"	5.08 cm	2"	5.08 cm	2"	5.08 cm	2"	2"
Weight, Dry	22 lbs.	10 kg	19 lbs.	8.5 kg	15 lbs.	6.8 kg	5.5 lbs.	4.75 lbs.
Volume Capacity	3.7 gal.	14 L	3.1 gal.	12 L	2.4 gal.	9 L	.93 gal.	.78 gal.
Working Pressure	90 PSI		90 PSI		90 PSI		90 PSI	90 PSI
Burst Pressure	270 PSI		270 PSI		270 PSI		270 PSI	270 PSI
Recommended Flow	5 GPM		4 GPM		3 GPM		1.25 GPM	1 GPM



Heliocol was chosen to provide the solar heating system for the Georgia Tech Aquatic Center, site of the Atlanta Summer Olympic swimming events.

Performance Ratings

BTU Per Day

Collector Size	Int'l Standard ORTECH	National SRCC	Florida Standard FSEC Data
HC-50 4'x12.5'	47,400	47,400	45,000
HC-40 4'x10.5'	39,400	39,400	37,440
HC-30 4'x8'	28,440	28,440	27,000
Performance Equations	.872 - 3.729 (Ti - TA) / I K _a X = 1.00 - .0316(S) - .0104(S) ²		825 - 3.74 (Ti - TA) / I K _a X = 1.00 - .04(S)

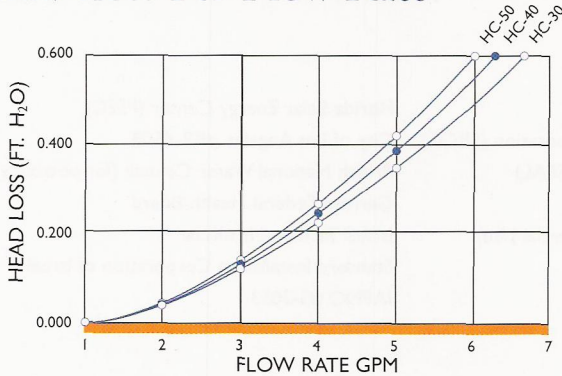
Performance Note:

Solar scientists agree that there are many variables to consider when properly sizing a system. Wind conditions, micro climates, flow rates, orientation and shading of the pool and/or collectors all effect the performance of your system. A BTU rating is just one of the many factors to consider.



Heliocol panels are designed to complement the beauty of your home.

Head Loss Per Flow Rate



Heliocol HC - 50

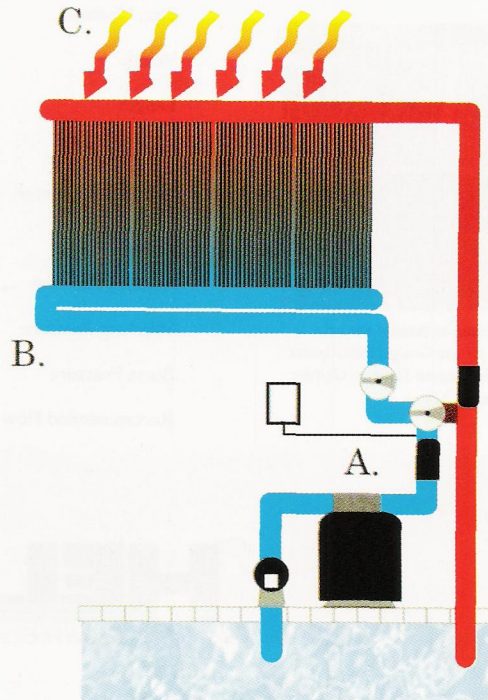
Collector Rating Numbers

Thousands of BTU's per Day per Panel

Category	ΔT (°F)	Solar Insolation		
		2,000 BTU/ft ²	1,500 BTU/ft ²	1,000 BTU/ft ²
Water Temp.	A (-9)	98.74	78.07	57.49
	B (+9)	64.13	44.01	23.96
minus	C (+36)	22.91	7.64	0
Air Temp.	D (+90)	0	0	0
	E (+144)	0	0	0

How Solar Pool Heating Works

- Using your existing pool pump, pool water is directed through a series of valves to your solar collectors.
- Pool water enters the solar collectors at the bottom and rises to the top through the individual tubes of the collector.
- As the water rises through the collector it is heated by the sun's radiant energy.
- The water is then returned to your pool to repeat the cycle until your pool has been warmed by the sun.



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