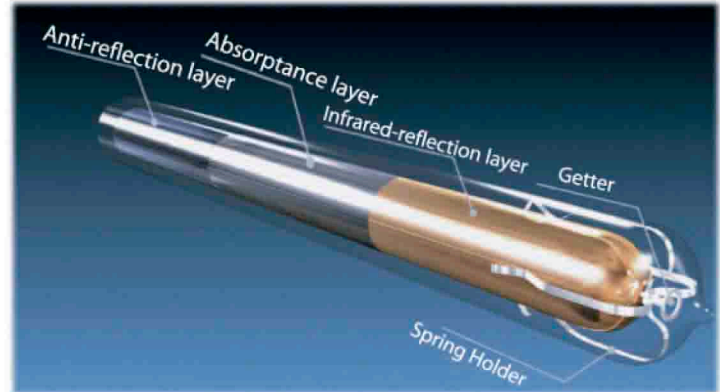


Heat Transition Pipe MPi47-1540-HT

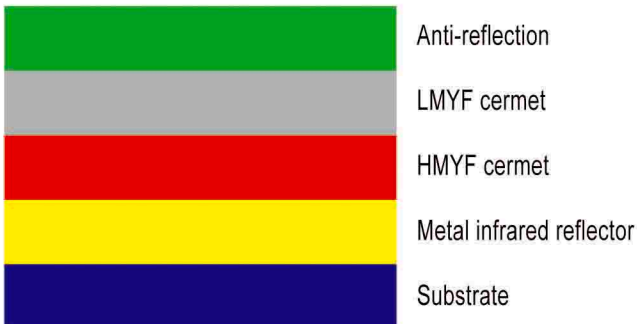
The heat transition pipe structure is between all-glass evacuated tube and metal-glass evacuated tube, where its full surface cylindrical absorber with its highly selective vacuum coating is a very high-performance product. Therefore, the entire collector's mean heat transfer to the solar loop is extremely efficient.

Features MPi47-1540-HT

- Suitable for frigid zones because there is no water in the tube
- Designed for pressurized system
- High solar-thermo conversion and low heat loss
- High output due to vacuum insulation
- High output due to advanced solar selective coatings:
-metal-Aluminium nitride cermet (M-AIN) materials
- Borosilicate glass: high chemical and thermal shock resistance
- Simple maintenance-tubes can be replaced without having to empty solar loops
- High output even at lower outside temperature



Typical section diagram of M-AIN cermet film structure



Specifications MPi47-1540-HT

Name	MPi47-1540-HT
Collector type	evacuated glass tube
Installation type	roof mounted
Structure	all glass coaxial double-layer tubes
Outer tube diameter	$\Phi 47 \pm 0.7\text{mm}$
Inner tube diameter	$\Phi 37 \pm 0.7\text{mm}$
Outer tube thickness	$1.6 \pm 0.15\text{mm}$
Inner tube thickness	$1.6 \pm 0.15\text{mm}$
Tubes length	$1540 \pm 4\text{mm}$
Empty weight	$1.35 \pm 0.12\text{kg}$
Material of coating	AIN/AIN-SS/Cu
Absorptance (α)	$0.94 \sim 0.96$
Emissance (ϵ)	$0.04 \sim 0.06$
Collector glazing	evacuated tubes (borosilicate glass)
Max. operating pressure	$\leq 5 \times 10^{-3} \text{ Pa}$
Transmittance of outer tube	0.91
Idle temperature	$270 \sim 300 \text{ }^\circ\text{C}$
Heat-loss coefficient	$\leq 0.6 \text{ w/m}^2 \text{ }^\circ\text{C}$
Bearing hailstone ability	hail stone diameter $\Phi 25\text{mm}$
Pressure endurance ability	1MPa