



## Tmate™ 2900 Series Phase Change Material

Tmate™ 2900 is a reusable phase change material designed for ease of testing and rework ability. Tmate™ 2900 has a composite construction of a special malleable metal alloy and a high performance phase change material. At 50°C, Tmate™ 2900 begins to soften and flow, filling the microscopic irregularities of the thermal solution, thus reducing thermal resistance.

Tmate™ 2900 shows no thermal performance degradation after 1000 hours at 130°C, or after 500 cycles, from -25°C to 125°C. The phase change material softens and does not fully change state resulting in minimal migration (pump out) at operating temperatures. Tmate™ 2900 is available in three thicknesses, 0.005 in. (0.125 mm), 0.010 in. (0.25 mm) and 0.020 in. (0.5 mm).

Item #	Color	Thickness	Density	Shelf Life	Thermal Resistance at 20 psi
Tmate 2905C	Silver Yellow	0.005 inches 0.127 mm	1.86 g/cc	1 year	0.070 °C-in <sup>2</sup> /W 0.450 °C-cm <sup>2</sup> /W
Tmate 2905	Silver Yellow	0.005 inches 0.127 mm	1.86 g/cc	6 months	0.110 °C-in <sup>2</sup> /W 0.710 °C-cm <sup>2</sup> /W
Tmate 2910C	Silver Yellow	0.010 inches 0.254 mm	1.58 g/cc	1 year	0.090 °C-in <sup>2</sup> /W 0.610 °C-cm <sup>2</sup> /W
Tmate 2910	Silver Yellow	0.010 inches 0.254 mm	1.64 g/cc	1 year	0.180 °C-in <sup>2</sup> /W 1.160 °C-cm <sup>2</sup> /W
Tmate 2920	Silver Yellow	0.020 inches 0.510 mm	1.52 g/cc	1 year	0.270 °C-in <sup>2</sup> /W 1.740 °C-cm <sup>2</sup> /W