

PHYSICAL PROPERTIES SHEET



PHASECHANGE
energy solutions

PRODUCT NAME: BioPCM™ - 27Q M27
MANUFACTURER: Phase Change Energy Solutions
120 East Pritchard Street
Asheboro, NC

For questions regarding this product, first call [1-800-283-7887](tel:1-800-283-7887)
If it is an emergency and there is no response, please contact the following:
For emergencies in the US and Canada, call CHEMTREC day or night at [800-424-9300](tel:800-424-9300)
For emergencies outside the US and Canada call CHEMTREC day or night at [703-527-3887](tel:703-527-3887)

TELEPHONE: 336-629-3000
FAX: 336-629-3100

COMPONENT	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
Film	multilayer white polyfilm	14 mil	.3556 mm
Pocket	formed white polyfilm pocket	22.5 ct 1.3"x 1.3" x .25" BioPCM® filled pods per sq. ft.	22.5 ct 33mm x 33mm x 6mm BioPCM® filled pods per sq. ft.
BioPCM®	Proprietary Blend of Emulsifiers, Gelling agents, Fatty Acids, Fatty Alcohols, Fatty Esters, and their derivatives.	.3 lbs phase change materials per sq. ft.	1.46 kilograms per sq. meter

PHYSICAL PROPERTIES	TEST METHOD	VALUES (ENGLISH)	VALUES (METRIC)
M-Value	ASTM	27 BTU per sq. ft.	290 BTU per sq. meter
Melt Point	DSC	80.6° Fahrenheit	27° Celsius
Specific Heat	DSC	0.9-1.1 BTU/lb	~2.1-2.5 kj/kg
Latent Heat	DSC	~86 btu/lb	~200 j/g
Thermal Conductivity	DSC	~0.05-0.07 W/ft/K	~0.18-0.22 W/m/K
Boiling Point	Thermometer	Greater than 478° F	Greater than 248° C
Dimensions	Ruler	17" x 46.625"	432mm X 1184mm
Total Unit Thickness	Micrometer	.25" to .35"	6mm to 9mm
Weight	Scale	.51 lbs per sq. ft.	2.49 kg per sq. meter
Permability	ASTM E96	0.09 (grains/hr*ft²*in Hg)	5.175 ng / N's

FIRE TESTING	ASTM E84	UL 723	ASTM E800 -0
Flame Spread	140	140	passed
Smoke Development	350	350	