### STIRLING **ULTRAGUARD**™



-70°C Phase Change Material



#### Safeguard your biological materials from temperature excursions, no matter what, with Stirling Ultraguard.

Phase change material (PCM) bricks back up and extend -80°C to -60°C passive holdover time for up to eight hours inside the Stirling Ultracold ULT25NEU portable freezer.

# What is Stirling Ultraguard?

Stirling Ultraguard sealed bricks are filled with non-toxic PCM that changes phase at -70°C and is exclusively designed to extend ultra-low temperature (ULT) passive holdover time for up to eight hours when conditioned and placed inside of a ULT25NEU portable ULT freezer.

## Up to 8 hrs unpowered thermal protection.

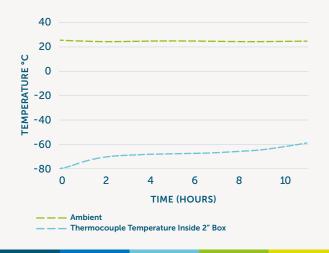
STIRLING POWER

## Now your high-value biological assets can be further protected when unpowered, for longer...

- If electric power is not available or lost unexpectedly
- In remote locations where stable, continuous power is unavailable
- During limited-range transport of temperature sensitive samples
- For replacing dry ice with a reusable and safer alternative

Combining Stirling Ultraguard with the ULT25NEU supports contingency planning and safe storage of temperature-sensitive biological materials, virtually anywhere and regardless of power, infrastructure, or dry ice availability.

#### **Stirling Ultraguard Thermal Performance**



SPECIFICATION	DATA	
Weight (1 Brick)	2.75 kg / (6.06 lbs.)	
Dimensions (1 Brick)	mm (H x D x W) 38.1 x 295.1 x 175	in. (H x D x W) 1.5 x 11.6 x 6.9
Conditioning Time (3 Bricks)	48 hours in a ULT freezer set to -86°C.	
Hold Time	Results will vary and validation for customer specific use cases should be conducted prior to usage. The product has been tested to provide up to an eight hour warmup profile in the ULT25NEU, per the protocol on page 6 of the PCM Operating Manual.	
РСМ Туре	Hydrated Salts	
Flammability	Non-flammable	
SHIPPING SPECIFICATION (3 BRICK KIT)	DATA	
Transport	Not restricted for transport per DOT, IMDG and ICAO/IATA regulations.	
Weight (3 Bricks)	9.5 kg / (21 lbs.)	
Shipping Dimensions (3 Bricks)	mm (H x D x W) 177.8 x 381 x 228.6	in. (H x D x W) 7 x 15 x 9



**To learn more about Stirling Ultraguard,** consult with a Stirling Ultracold Sales Representative.



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