

Cold Chain Center of Excellence

Protecting What Matters...Supporting Your Team With Guidelines

Proper Conditioning of Refrigerants & PCM's



Robust, repeatable packaging designs combine compatible materials to meet the user's specific requirements. Properly conditioning refrigerants is a key element in repeatable package performance. Whether you use gels by the case or by the truckload it is important to allow sufficient time for the refrigerant to reach the correct temperature before use.

Insist on adequate spacing to allow good airflow when storing pallets of gels or bricks .

Materials Specification												
Refrigerant	Freeze Point		Energy Storage		To Freeze, Store Below		Standard Freezing Environment		To Melt , Store Above		Standard Melting Environment	
	°C	°F	kJ/kg	BTU/#	°C	°F	°C	°F	°C	°F	°C	°F
Water Gel	0	32	336	144	-5	23	-15° Freezer	5° Freezer	5	41	22° Room	72° Room
Water Brick	0	32	336	144	-5	23	-15° Freezer	5° Freezer	5	41	22° Room	72° Room
5°C PCM	5	41	238	102	0	32	-10° Freezer	5° Freezer	10	50	22° Room	72° Room
22° PCM	22	71.6	229	98	22	71.6	5° Refrigerator	41° Refrigerator	27	80.6	30° Incubator	86° Incubator
-20° Gel	-20	-4	250	110	-25	-13	-30° Freezer	-22° Freezer	-15	5	22° Room	72° Room

EFP is a Full Service Refrigerant Supplier Offering:

- Gel or Brick Shipments in Returnable Trays
 - Faster, Uniform Conditioning
 - Reduces Corrugate Scrap (No Gel Carton Disposal)
- Pre-Conditioned Refrigerants
 - Utilize Off Site Cold Storage Facilities
 - Gels Delivered JIT to Meet Demand
 - Gain Additional Storage in Freezers and Refrigerators
- Private Label Printing of Gels and Bricks
 - Your Logo
 - Special Instructions



Guidelines to insure refrigerants are ready when needed:
 Individual Cases = 48 hours
 Pallets = 5 to 7 days

Need gels ready tomorrow? Spread the gels individually on a flat pan or corrugate panel and freeze overnight.



EFP Temperature Solutions Indiana • Tennessee • Alabama Sales: 800.205.8537 X322

Visit us on the Web: www.pharmatuff.com