

TECHNICAL BULLETIN ON MILITEC-1® IN WINDOW AIR CONDITIONERS

November 8, 1991

In the summer of 1991, a hospital in the Chicago area tested Militec-1 in a window air conditioner rated at 12,500 BTU.

Test Methodology:

A new compressor was installed for the test. The air conditioner was first run for 2 days and carefully monitored. The compressor was then discharged. Two ounces of Militec-1 was put into it and it was then charged with Freon. The air conditioner was then run for two more days and carefully monitored.

Test Results:

There was an average amperage drop of 7% during the 2-day test with Militec-1. At startup, before Militec-1 was added, the amperage was between 4.9 and 5.0. The amperage would then slowly drop to an operating level of 4.71. With Militec-1, the amperage at startup was 4.5 and this did not change during operation.

The temperature change across the coils increased 8°F. This can be further described as follows: the air conditioner, at its maximum effectiveness, can take in air at, for example, 83°F and discharge it (outside) at 103°F. This is a 20 degree increase. The increase in temperature is the heat that the air conditioner removes to provide the cooler air that is forced into the room. With Militec-1, the discharged air would be 111°F. This is a very dramatic increase which demonstrates how much more efficiently the air conditioner is working due to the action of Militec-1 in the compressor.

Other Findings:

It was also found that, while Militec-1 is not miscible with Freon (the two cannot mix), they are compatible. When Militec-1 is placed on metal while it is cold, and then Freon is applied, the Militec-1 will be stripped off of the metal. However, when the metal is heated, either from friction or from an outside source, the Militec-1 will bond with the metal and the Freon will not be able to affect it thereafter.

Aftermath:

The hospital now has Militec-1 in the compressors of all its window air conditioners.