

To:  
Mr. Bezalel Tevet 05.12.1999  
Twin Towers  
Jabotinski St 1  
Ramat Gan

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Subject: Examination of Blygold Condenser Coating – Twin Towers, Ramat Gan

During the months of July-August-September 1999 the efficiency of the coating material for condenser coils as produced and executed by Blygold was checked.

Description of test:

The Twin Towers in Ramat Gan are two identical buildings, as are the air conditioning units installed in them. In each tower 3 water-cooling units are installed, of TRANE production, which are absolutely identical and located in the same relative position on the roofs on buildings.

For the purpose of the test the condenser coils of the cooling units on Tower 1 were coated, whereas those on Tower 2 underwent cleaning only. During the months of the tests readings were taken of the pressure gauges (suction delivery and oil) and of electricity meters. Daily records were also kept for each unit of the external temperature in the area of the unit.

Basic conditions:

The cooling load required in Tower 1 is greater than in Tower 2.

Results:

1. During the whole of the test periods the compressors of Tower 1 (with coating) operated on an average at a delivery pressure of about 2 BAR or 30 PSI less than the twin units in Tower 2, whilst the suction pressures remained essentially identical (differences of up to 0.2 BAR or 3 PSI).
2. Comparing the readings of the electricity meters of the 2 towers (the meters are dedicated to the main airconditioning systems only) it was found that:
  - a. Whilst during 1998 the electricity consumption of Tower 1 was about 8000 KWh/month higher than that of Tower 2, the difference was now reduced to 1000 KWh/month after coating.
  - b. The differences in electricity consumption for airconditioning in Tower 1 between 1998-1999 showed a saving of about 6% i.e. 8000 KWh.



Conclusions:

1. The efficiency of the cooling units' performance increase after applying the Blygold coating to the condensers
2. Reduction in electricity consumption for airconditioning is obtained to the tune of about 10,000 KWh/ month. At a cost of 40 Agorot per unit (average) this represents a monthly saving of NIS 4000 or a yearly saving of NIS 48,000.
3. An additional saving, though not shown immediately, is the reduction of wear of the equipment due to the coating.
4. The coating stops the wear of the coils and maintains existing conditions for many years. The cost of the renewal of a condenser coil is on average about NIS 30,000, whereas the cost of coating is about 1/3 of thereof.

Faithfully,

Eng. Yaron Shamai  
Juvalim Co.