

Condensed Report: Capacity Tests on Bronz-Glow Coated Coils

All tests conducted by Whirlpool Engineering Laboratories

HUSKY COIL COAT

These tests were undertaken to determine the most feasible, cost-effective, and energy efficient coating to protect coils and components in temperate marine environments (salt air). Several commercial "coatings" and inhibitors were tested for corrosion resistance, as well as their effect on unit capacity (heat transfer efficiency).

In each test, the coil, brace, capacitor bracket, capacitor, divider wall, and reversing valve were coated, then placed in salt spray along with an un-treated component. The salt spray test was performed to ASTM B117.85 standards, using a 5% salt solution at 96.0 degrees F, with 100% humidity. The components were exposed for 240 hours, removed and rinsed with cool water, and the process repeated to a total time of 1200 hours.

Bronz-Glows Husky Coil Coat was included in the series of tests.

"For coil protection, the Husky coil protectant proved to be the best (of the various coatings tested). There is no evidence of failure (fin deterioration)." (4/27/92)

"The un-treated coil had fin deterioration around the header plate (after the same exposure)". (4/27/92)

Husky Coil Coat is a complex, chain-linked polyelastomer process, resistant against the entire pH scale of corrosives.

Complete capacity tests were performed on each unit before and after the coating was applied.

"...chassis was tested before and after treatment of Husky Coil Coat protectant...Tests indicate no change in unit performance". (4/27/92)

The primary performance data was as follows:

Husky Coil Coat protector tests, control no. W920227-778, 2/28/92			
	Before Coating	After Coating	Difference
% Operating Capacity*			
Test 1 - A	103.5 %	103.4 %	-0.1 %
Test 2 - A	102.2 %	102.9 % Improved	+0.7
Energy Efficiency (EER) **			
Test 1 - B	8.12	8.12	0.0 (0.0 %)
Test 2 - B	8.03	8.08 Improved	+0.05 (+.623 %)

*Indoor Net Total Btuh divided by the rate Btuh of the unit. **The EER is defined as Btuh/watts.

It should be noted that, in actual use, these figures indicate no effect on the heat transfer capacity of the units. Variations of 1-2% in capacity and efficiency regularly occur in normal testing, due to slight changes in the test room environment, or as a result of higher precision in the testing instruments being utilized.

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