

Gipaanda Greenhouses Delta

MAY 2001

[RUSTGRIP](#)® primer and [SUPERTHERM](#)®



PROBLEM: Former insulation (perlite) became moisture laden which significantly reduced the R-Value. The result was unnecessary heat loss, corrosion to the pipes and mold in the insulation, all due to moisture. **SOLUTION :** Clean and primer coat pipes with [RUSTGRIP](#)® @ 3 - 6 mils WFT = 1.5 - 3 mils DFT to permanently rust proof pipes and prevent rust bleed. Top coat with [SUPERTHERM](#)® NON DETERIORATING (waterproof) liquid ceramic R19 insulation @ 14 mils WFT = 7 mils DFT Note : 1 mil = 1/1000"

BELOW: [RUSTGRIP](#)® primer coated Feeder (left) pipe and return pipe



(right)

BELOW: Top coat [SUPERTHERM](#)® NON DETERIORATING liquid



ceramic insulation

TEMPERATURE READINGS: 05/04/01 (day of application)

Bare portion of feeder pipe = 80°C

SUPERTHERM® coated feeder pipe = 76°C

Temperature Difference = -4°C (5% REDUCTION IN HEAT LOSS)

Bare portion of return pipe = 49°C

SUPERTHERM® coated return pipe = 46°C

Temperature Difference = -3°C (6% REDUCTION IN HEAT LOSS)

NOTE : During the initial reading the coating of SUPERTHERM® which cures by evaporation still had moisture in the coating which acted as a conductor as opposed to a resistor (R). SUPERTHERM® contains 8% water when first applied. The Canadian Roofing Association performed a study and determined that just 1% - 1.5% moisture content reduces the R value in bulk insulations by over 35%. As the coating of SUPERTHERM® cured down and the moisture content decreased the performance

improved.



TEMPERATURE READINGS: 05/15/01 (11 days after being applied even though the Tech Information states that the coating cures out completely in 14 days @ 70°F ambient with a relative humidity of < 70%)

Bare portion of feeder pipe = 86.2°C

SUPERTHERM® coated feeder pipe = 69.8°C

Temperature Difference = 16.4°C (19% REDUCTION IN HEAT LOSS)

Bare portion of return pipe = 41.3°C

SUPERTHERM® coated return pipe = 33.5°C

Temperature Difference = 7.8°C (19% REDUCTION IN HEAT LOSS)

NOTE : A greater reduction in surface temperature can be achieved by adding additional mils.