CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

From this works, the following conclusions can be drawn ;

1.) Heat transfer for tire curing application (195 R 14 C light truck radial tire) has been described based on one dimension of heat flow on cylindrical coordinate.

2.) This computer-aided simulation was used to simulate the temperature - time profile of under tread position. It also provided temperature/time data for tire curing process.

3.) The mathematical model was built to calculated the value of empirical thermal diffusivity for tire curing process of 195 R 14 C. The value was 9.04×10^{-7} m^2/sec.

RECOMMENDATIONS

To complete the simulation for tire curing process, further studies should be carried out as follows ;

1.) For the determination of thermal characteristic of rubber compound, there should be measured thermal conductivity of rubber compound , if that known , the value of thermal diffusivity is calculated and compared with the empirical value.

2.) Variation of tire structure should be studied, because there are many components that might be affected simplification of this simulation.

3.) The temperature - time profile in each position should be measured to compare with the under tread position.

4.) For the simulation of temperature - time profile of under tread position should be evaluated the equivalent cure, for determining the optimum cure time.