

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Conclusions that can be drawn about the effect of samarium content on fluidity at pouring temperature of 670 °C until 770 °C are as follows :

1. The fluidity increases at content range 0% until 0.01% but the fluidity decreases at content range 0.01% until 0.1% at a temperature pouring of 720 °C and 770 °C.
2. The fluidity increases with variation Tendency of temperature at range 670 °C until 770 °C.
3. Samarium has function effect for grain boundary become getting closer. For Al-7%Si-0.1%Sm the α – Al+Si matrix not too much than Al-7%Si-0%Sm and hardness number for the Al-7%Si increase when samarium content above 0.01%.

5.2 Recommendation

For the future research, the recommendation is to do fluidity test with adding of rare earth metal samarium above 0.01% until 0.05% to spiral test to produce a better information about fluidity value in aluminum silicon alloy.

