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WICHAI THAKULNUCH : CONDITIONS AFFECTING THE CURING PROCESS OF RUBBER. THESIS ADVISOR : ASSIST.PROF.SASITHORN BOON-LONG, Dr. 3e Cycle, THESIS CO-ADVISOR : MR.LIKHIT SAPPASOOK, 93 pp. ISBN 974-631-586-2

Curing process of rubber depends on three major parameters, they are temperature, chemical system and curing time. In practice, appropriate condition is important in obtaining the desired properties and productivity. For this reason, it is necessary to study the conditions affecting the curing process of rubber. This research was conducted to investigate the effects of temperature on rubber compound formula T458. Flow properties were measured using oscillating disk rheometer at 130, 140, 150, 160, 170 and 180°C, the results obtained were used to calculate the activation energy and cure equivalence at different temperature.

The effects of the chemical system was studied by adjusting the quantity of the accelerator and the curing agent used in the formulation. Results showed that activation energy varied with formulation. Moreover, the accelerator and curing agent affected the physical properties of the rubber compound, therefore to obtain desired properties appropriated ratio of accelerator and curing agent should be used.

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