

CHAPTER V

CONCLUSION

In this research work, the solder masks were prepared by mixing the prevulcanized latex with a thickener. The process of solder mask preparation consisted of two steps. In the first step, the prevulcanized latex was prepared from the natural rubber latex and ingredients. In the second step, the viscosity of the prevulcanized latex was adjusted by carboxymethyl cellulose. The prevulcanized latex was prepared as vulcanized sheets to study the mechanical properties (tensile strength, elongation and hardness); and the solder masks were prepared from prevulcanized latex and a thickener in order to study the physical properties (adhesion strength and viscosity). The formulation of solder marks that gave the appropriate properties in this experiment are shown as follows:

- 60% Natural rubber latex	100	Parts by weight
- 15% Casein	0.75	phr
- 10% Potassium hydroxide	1	phr
- 25% Tergitol NP9	0.5	phr
- 50% Zinc oxide	0.66	phr
- 50% Tetramethyl thiuram disulfide	2	phr
- 33% Zinc dibutyl dithiocarbamate	0.66	phr
- 10% Thiourea	0.66	phr

