SELECTION OF NATURAL RUBBER LATEX CONCENTRATES AVAILABLE IN SRI LANKA FOR RADIATION VULCANIZATION

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Concentrated natural rubber latex obtained from different sources were tested for suitability of using in radiation vulcanization. It was founded that some latices had better suitability for radiation vulcanization than others when characterized according to tensile strength, gel content, bound nitrogen content and modulus Of all these parameters tensile strength was the best criterion forselection of natural rubber latex for radiation vulcanization. Methods of increasing the gel content of raw latex were also investigated by treatment with different chemicals. (Benzidine, Para Phenylene diamine etc.)

Increase in tensile strength shown by films cast from irradiated latex obtained from Indonesia after heat treatment and leaching can be explained as due to additional crosslinks that are formed during treatment. By considering the intercept of Mooney Rivlin plot and measurement of gel content of different latex films, these additional crosslinks were found to be more "effective" entanglements rather than "loose" entanglements.

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