QUALITY IMPROVEMENTS OF NATURAL RUBBER LATEX FOAM

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ABSTRACT

Natural rubber latex foam is a highly profitable product for Sri Lanka as a third world country. European market is available for natural rubber latex foam very competitively with Polyurethane foam. Natural rubber latex is very cheap and a highly available source in Sri Lanka. So the production cost is low when compared with other products. But Sri Lanka has to compete with countries such as Malaysia, India, Thailand, Bangladesh and Pakistan. So the quality of the product has become the major need today.

The quality of the natural rubber latex foam depends on the quality of the latex. The quality checking was carried out by testing; dry rubber content, total solid content, ammonia content, volatile fatty acid content and mechanical stability time. The qualitatively prepared dispersions and compounded latex were tested. A selected recipe given by the company’s management was changed. Those changes were made mainly with the added chemicals and physical parameters of the process to improve the quality of latex foam.

Effects of chemicals mainly studied were zinc oxide, diphenylguanidene and sodiumsilicofluoride. The physical factors, which mainly influenced the quality of the natural rubber latex foam, were initial temperature of the compounded latex, diphenylguanidene adding time and maturation time of the compounded latex. In addition to this pH variation and density variation in the final foam product were studied in depth.
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Conclusion

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