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EFFECT OF SILICA AND CLAY ON TEAR
AND ABRASION RESISTANCE OF
NATURAL RUBBER

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SUMMARY

It is well known that Silica gives reinforcement to Natural Rubber to give good mechanical properties. In this comparison of cure characteristics, physical and mechanical properties of Silica filled Natural Rubber compounds prepared with varying accelerator systems, stearic acid content and anti-oxidants were studied.

The results indicated that the MBTS/ZDC and TBBS/ZDC systems with Phenolic type anti-oxidant give better properties than other systems. According to the results obtained MBTS/ZDC and TBBS/ZDC systems are quite different from other systems with respect to tensile strength, tear strength and hardness. On the other hand TBBS/ZDC system with Nonox SP gives better Abrasion Resistance than other systems, if Silica and Clay are used as fillers.

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