## T.8 RANI JOSEPH-Curing studies of elastomer blend with special reference to NR/SBR & NR/BR blends-1988-Dr. D. Joseph Francis

This thesis describes the ways of achieving the covulcanised state of two-component elastomer blends where the blends are cured in such a way that the crosslink densities in the two phases are optimum.

First part of the thesis describes ways of relating the curing behaviour of an elastomer blend to the compatibility between the constituents. This is a very convenient and simple way of judging the compatibility compared to the

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## conventional methods available.

In the second part of the study blends of natural rubber with styrene-butadiene rubber singled out for detailed study due to its commercial significance. Effect of various curing systems on the mechanical behaviour and network structure of the blend is described. As the third part of the study, a detailed discussion on the behaviour of blends of natural rubber with polybutadiene rubber is given.