

Effect of HNTs Incorporation on the Properties of Styrene Butadiene Rubber

Prachetash Srivastava, K.N. Pandey, A.V. Ullas and R.M. Mishra

*Central Institute of Plastic Engineering and Technology Lucknow-226005, India
E-mail: prachetashrvstv337@gmail.com*

Abstract—*The Present study deals to develop nanocomposites based on SBR incorporated with various amounts of Halloysite. Nanocomposites have been prepared with the help of melt mixing process through two-roll mill. It is evident from mechanical property results that there is significant enhancement in tensile strength, tensile modulus and Hardness etc. SEM results demonstrate that there is uniform and homogeneous dispersion of halloysite over SBR matrix. SEM micrograph shows that there is no void and debonding. TGA analysis shows that there is appreciable enhancement in thermal stability of the developed nanocomposites and this may be because of good filler-rubber interaction.*

Keywords:- TGA, SBR, SEM, HNTs.