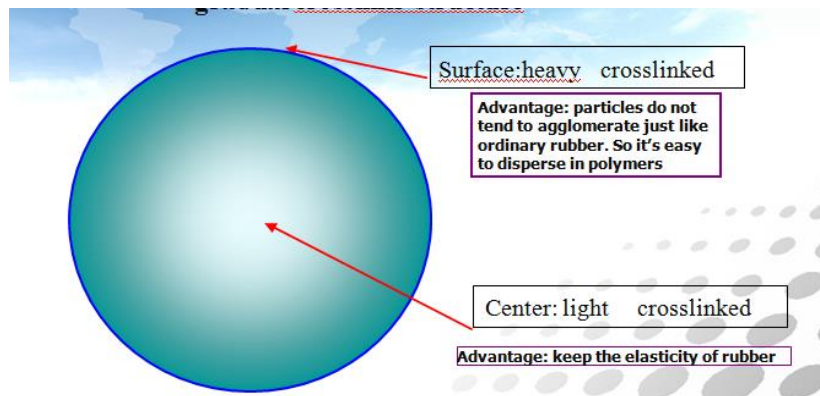


Improving the performance of resins through nanoparticle engineering

A new technology has been developed to improve the dispersion performance of polymers based upon engineering of rubber nanoparticle structure. In more detail the degree of crosslinking in each rubber nanoparticle is controlled such that in the central region the cross linking is light whilst in the outer region it is increased significantly. The central low level of crosslinking retains elasticity compared to standard polymer properties whilst the high crosslinking at the surface creates a structure that discourages inter particulate interactions to reduce agglomeration tendencies. The nanoparticles with this unique microstructure are easier to disperse in the resin and in this presentation examples of the use of Ultrafine Full-vulcanized Powdered Rubber (UFPR) in a variety of applications will be provided highlighting their improved performance.



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