

Analysis of Carbon Black Proportion on Durability and Wear Behavior of EPDM Rubber

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Abstract: *This study aims at understanding the effect of carbon black on mechanical properties of EPDM rubber. For this we select combination of carbon blacks N330 and N550 with standard curing procedure to minimize the wear rate and maximize durability. The EPDM rubbers were characterized using hardness, tensile, wear and durability tests. The coefficient of friction (COF), volume loss and wear rate of the EPDM rubbers were determined. It was found that with increasing CB content all above characteristics were reduced. Result shows that by using optimum combination of carbon black we can enhance wear performance and durability of EPDM rubber.*

Keywords: EPDM rubber, Carbon black, Durability, Wear rate

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