

## **Analysis of the Torque Required for Mixing LDPE with Natural Fibre and DCP**

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**Abstract :** This study evaluated the incidence of concentrated natural fibre, as well as the effects of adding a crosslinking agent on the torque when those components are mixed with low density polyethylene (LDPE). The natural fibre has a particle size of between 0.8-1.2mm and a moisture content of 0.17%. An internal mixer was used to measure the torque required to mix the polymer with the fibre. The effect of the fibre content and crosslinking agent on the torque was also determined. A change was observed in the morphology of the mixes using SEM differential scanning microscopy.

**Keywords :** WPC, DCP, LDPE, natural fibre, torque

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