

7. CONCLUSION

Due to the poor interfacial adhesion between graphite particles and polymer matrix, particles can be detached from the matrix under hard micro-ploughing and micro-cutting attacks by the steel asperities. Besides, the lack of support and protection of graphite particles produces more weak spots causing more polymer matrix to be transferred and removed from the composite. From the reported, it was not easy to find abrasive characteristics thus adhesive wear is the primary mechanism of the PA66/Gr composites.

During the experiment, graphite particles on the pin transferred to the disc surface were observed and this film protects the rubbing of surfaces and has lubricant behavior. This process leads to much lower friction temperature, which leads to reduction in material loss due to wear.

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