

## SECTION 4

### CONCLUSIONS

1. Thermoplastic natural rubber (TPNR) blends can be conveniently prepared using granulated sole crepe rubber mixed with polyolefin granules in a mixing extruder maintained at a temperature above the melting point of the polyolefin used.
2. Study of physical properties such as tensile properties, impact strength and specific gravity indicate uniformity of mixing in the blends prepared by the above method.
3. Microscopic studies indicate that the particle size of the dispersed rubber phase in the blends is larger than the optimum particle size for best impact strength.

## SECTION 5

### SUGGESTIONS FOR FURTHER WORK

1. The use of more efficient mixing extruders to blend granulated natural rubber with polypropylene may help to reduce the particle size of the dispersed rubber phase. Twin screw extruders and the cavity transfer mixer are likely to yield better results.
2. Microscopic studies should be carried out with more sophisticated techniques such as cryoscopic microtomy and staining.
3. As flexural strength is an important characteristic of polymer blends, TPNR blends should be evaluated by measuring their flexural properties.



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