Claims

1. A rubber composition for use in the manufacture of engineered products for civil and mechanical engineering applications wherein said rubber composition comprises a mixture of natural rubber, nanocarbon and carbon black wherein the relative amount in parts per hundred rubber (pphr) of nanocarbon to carbon black is in the range of 1 : 6 to 1 : 3 and the relative amount in parts per hundred rubber (pphr) of nanocarbon to natural rubber is in the range of 1 : 100 to 8 : 100 and wherein the natural rubber component is from a masterbatch which has been prepared by pre-dispersing a pre-determined amount of the nanocarbon component in natural rubber latex.

2. A rubber composition according to claim 1, wherein the relative ratio of nanocarbon to natural rubber in pphr is in the range of any of the following: 2:100 to 6:100 or 2:100 to 5:100.

3. A rubber composition according to any preceding claim, wherein the rubber component contains from 1 to 10, 1 to 8, 1 to 6 or 2 to 5 pphr nanocarbon.

4. A rubber composition according to any preceding claim, wherein carbon black is present at a level of from 10 to 50 or 20 to 40 pphr.

5. A rubber composition for use in the manufacture of engineered products for civil and mechanical engineering applications wherein said rubber composition comprises a mixture of natural rubber, nanocarbon and carbon black wherein the relative amount in parts per hundred rubber (pphr) of nanocarbon to carbon black is in the range of 1:10 to 1:2 and the relative amount in parts per hundred rubber (pphr) of nanocarbon to natural rubber is in the range of 1 : 100 to 8 : 100 wherein the rubber component is from a masterbatch which has been

prepared by pre-dispersing a pre-determined amount of nanocarbon in natural rubber.

6. A rubber composition according to claim 5, wherein the relative ratio of nanocarbon to carbon black in pphr is in the range of any of the following: 1:5 to 1:4.

7. A rubber composition according to any of claims 5 or 6, wherein the relative ratio of nanocarbon to natural rubber in pphr is in the range of any of the following: 1:40 to 1:12; 1:35 to 1:15 or 1:25 to 1:20.

8. A rubber composition according to any of claims 5 to 7, wherein the rubber component contains from 1 to 10, 1 to 8, 1 to 6, 3 to 5, or 5 pphr nanocarbon.

9. A rubber composition according to any of claims 5 to 8, wherein carbon black is present at a level of from 15 to 35, 15 to 30, or 20 to 25 pphr.

10. A rubber composition according to Claim 1 or 5, wherein the natural rubber is selected from any one of or combination of the following: unprocessed and processed latex products such as ammonia containing latex concentrates; RSS, ADS or crepes; TSR, SMR L, SMR CV; speciality rubbers SP, MG, DP NR; or field grade (cup lump) rubber products such as TSR, SMR 10, SMR 20, SMR 10 CV, SMR 20 SV, SMR GP, SMR CV60.

11. A rubber composition according to Claim 1 or 5, wherein the natural rubber is selected from chemically modified natural rubber products including: epoxidized natural rubbers (ENRs) such as for example ENR 25 and ENR 50.

12. A rubber composition according to Claim 1 or 5 containing a vulcanizing agent.

13. A rubber composition according to Claim 1 or 5containing one or more vulcanizing delaying accelerators.

14. A composition according to Claim 1 or 5 containing one or more vulcanizing activating agents.

15. A rubber composition according to Claim 1 or 5 containing one or more antioxidants.

16. Use of a rubber composition as defined in any of claims 1 to 15 in bridge bearings.

17. Use of a rubber composition as defined in any of claims 1 to 15 in seismic bearings.

18. Use of a rubber composition as defined in any of claims 1 to 15 in marine fendering systems.