Supporting Information

Fabrication of β-cyclodextrin-crosslinked epoxy polybutadiene/hydroxylated boron nitride nanocomposites with improved mechanical and thermal-conducting properties

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**Fig S1**-1H-NMR spectra of BR and EBR.

Table S1 -The vulcanization formula for preparation of EBR/S composites.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Component | Sulphur | Zinc oxide | Stearic acid | CBS |
| Content (phr) | 10 | 3.00 | 1.80 | 0.90 |

**Table S2** -Mechanical properties of EBR/βCD/*m*BN nanocomposites.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Samples | Storage modulus(a)(MPa) | Young’s modulus(b)  (MPa) | Tensile strength(b)  (MPa) | Elongation at break(b)  (%) |
| EBR | 3.11 | 2.11 | 1.35 | 130.61 |
| EBR/10*m*BN | 3.87 | 3.97 | 2.60 | 267.66 |
| EBR/10βCD/10*m*BN | 5.35 | 4.36 | 2.80 | 226.25 |
| EBR/20βCD/10*m*BN | 9.62 | 5.02 | 3.08 | 170.46 |
| EBR/30βCD/10*m*BN | 12.71 | 6.35 | 3.64 | 149.88 |
| EBR/20βCD | 5.01 | 3.33 | 2.55 | 310.65 |
| EBR/20βCD/5*m*BN | 8.53 | 3.74 | 2.73 | 260.19 |
| EBR/20βCD/15*m*BN | 12.05 | 5.90 | 3.56 | 114.76 |
| (a)Data were acquired from DMA at 20 °C. (b)Data were acquired from tensile tests at 20 °C. | | | | |