CLAIMS

What is claimed is:

1. A tire curing bladder, comprising:

a brominated poly(isobutylene-co-paramethylstyrene) elastomer having a Mw/Mn ratio greater than or equal to 2.5 and less than or equal to 10; mercaptobenzothiazole disulfide; a phenolic resin; and a curative agent.

2. The tire curing bladder of claim 1, wherein the brominated poly(isobutylene-co-paramethylstyrene) elastomer comprises 80 to 99.5 mole percent of isobutylene and 0.5 to 20 mole percent of paramethylstyrene.

3. The tire curing bladder of claim 1, wherein the curative agent is zinc oxide.

4. The tire curing bladder of claim 1, further comprising at least one filler selected from the group consisting of: calcium carbonate, clay, mica, silica, silicates, talc, titanium dioxide, aluminum oxide, starch, wood flour, carbon black, and a combination thereof.

5. The tire curing bladder of claim 4, wherein the filler is a carbon black N110 to N990 per ASTM D1765-17.

6. The tire curing bladder of claim 4, wherein the phenolic resin is at least one alkyl phenol formaldehyde resin selected from the group consisting of: octyl phenol formaldehyde resin, brominated octyl phenol formaldehyde resin, and a combination thereof.

7. The tire curing bladder of claim 1, further comprising:

a second poly(isobutylene-co-paramethylstyrene) elastomer, the second poly(isobutylene-co-paramethylstyrene) elastomer having a Mw/Mn ratio less than 2.5.

8. The tire curing bladder of claim 7, wherein the second poly(isobutylene-co-paramethylstyrene) elastomer is halogenated.

9. The tire curing bladder of claim 8, wherein the second poly(isobutylene-co-paramethylstyrene) elastomer comprises 80 to 99.5 mole percent of isobutylene and 0.5 to 20 mole percent of paramethylstyrene.

10. The tire curing bladder of claim 7, wherein the brominated poly(isobutylene-co-paramethylstyrene) elastomer is present in 50 parts per hundred rubber (phr), and wherein the second poly(isobutylene-co-paramethylstyrene) elastomer is present in 50 phr.

11. The tire curing bladder of claim 7, wherein the tire curing bladder has a compound Mooney viscosity of less than 90 Mooney units (ML, 1+4 at 100°C).

12. The tire curing bladder of claim 11, wherein the Mw/Mn ratio of the brominated poly(isobutylene-co-paramethylstyrene) elastomer is greater than or equal to 2.5 and less than or equal to 4.

13. A composition, comprising:

an elastomeric composition formed into a tire curing bladder, the elastomeric composition comprising:

a brominated poly(isobutylene-co-paramethylstyrene) elastomer having a Mw/Mn ratio greater than or equal to 2.5 and less than or equal to 10; and

a cure package comprising: mercaptobenzothiazole disulfide; a phenolic resin; and a curative agent.

14. The composition of claim 13, wherein the elastomeric composition further comprises:

a second poly(isobutylene-co-paramethylstyrene) elastomer, the second poly(isobutylene-co-paramethylstyrene) elastomer having a Mw/Mn ratio less than 2.5.

15. The composition of claim 14, wherein the elastomeric composition further comprises at least one of:

the second poly(isobutylene-co-paramethylstyrene) elastomer is halogenated;

the second poly(isobutylene-co-paramethylstyrene) elastomer comprises 80 to 99.5 mole percent of isobutylene and 0.5 to 20 mole percent of paramethylstyrene;

the brominated poly(isobutylene-co-paramethylstyrene) elastomer is present in 50 parts per hundred rubber (phr), and wherein the second poly(isobutylene-co-paramethylstyrene) elastomer is present in 50 phr; or

the tire curing bladder has a compound Mooney viscosity of less than 90 Mooney units (ML, 1+4 at 100 °C).