WE CLAIM:

1. A polymer composition for coating expanded polystyrene (EPS), comprising:

a mixture comprising at least two of a polyurea, a polyurethane, a silicon elastomer, and a combination thereof,

wherein the mixture comprises at least one of: (a) the polyurea and the polyurethane in a first predefined ratio of 60:40 to 80:20, by weight, and (b) the polyurea, the polyurethane, and the silicon elastomer in a second predefined ratio of 60:37:03 to 78:19:03, by weight.

2. The polymer composition as claimed in claim 1, wherein the mixture comprises the polyurea and the polyurethane in a third predefined ratio of 65:35, by weight.

3. The polymer composition as claimed in claim 1, wherein the mixture comprises the polyurea, the polyurethane, and the silicon elastomer in a third predefined ratio of 65:32:03, by weight.

4. The polymer composition as claimed in claim 1, wherein the mixture comprises the polyurea and the polyurethane in the first predefined ratio of 60:40 to 80:20, by weight, and is configured to impart flexural strength and elongation strength to the EPS.

5. The polymer composition as claimed in claim 1, wherein the mixture comprises the polyurea, the polyurethane, and the silicon elastomer in the second predefined ratio of 60:37:03 to 78:19:03, by weight, and is configured to impart an anti-static property along with flexural strength and elongation strength to the EPS.

6. A process for coating a molten polymer composition onto an expanded polystyrene (EPS), comprising:

heating a mixture comprising at least two of a polyurea, a polyurethane, a silicon elastomer, and a combination thereof at 70° C to 85 °C to obtain the molten polymer composition,

wherein the mixture comprises at least one of: (a) the polyurea and the polyurethane in a first predefined ratio of 60:40 to 80:20, by weight, and (b) the polyurea, the polyurethane, and the silicon elastomer in a second predefined ratio of 60:37:03 to 78:19:03, by weight;

coating the EPS with the molten polymer composition to form a layer of a predefined thickness on a surface of the EPS; and

drying the coating on the surface of the EPS.

7. The process as claimed in claim 6, wherein the mixture comprises the polyurea and the polyurethane in a third predefined ratio of 65:35, by weight.

8. The process as claimed in claim 6, wherein the mixture comprises the polyurea, the polyurethane, and the silicon elastomer in a third predefined ratio of 65:32:03, by weight.

9. The process as claimed in claim 6, wherein the mixture comprises the polyurea and the polyurethane in the first predefined ratio of 60:40 to 80:20, by weight, and is configured to impart flexural strength and elongation strength to the EPS.

10. The process as claimed in claim 6, wherein the mixture comprises the polyurea, the polyurethane, and the silicon elastomer in the second predefined ratio of 60:37:03 to 78:19:03, by weight, and is configured to impart an anti-static property along with flexural strength and elongation strength to the EPS.

11. The process as claimed in claim 6, wherein the coating the EPS with molten polymer composition is carried out using a gun controlled by a robotic arm.

12. The process as claimed in claim 6, wherein the layer of the predefined thickness is uniform over the surface of the EPS.

13. The process as claimed in claim 6, wherein the layer of the predefined thickness is varied over the surface of the EPS.

14. The process as claimed in claim 6, wherein the layer of the predefined thickness that is coated on the surface of the EPS ranges from 0.5 mm to 1 mm.

15. An expanded polystyrene (EPS), comprising:

a layer of a predefined thickness of a polymer composition coated on a surface of the EPS, wherein the polymer composition comprises:

a mixture comprises at least two of a polyurea, a polyurethane, a silicon elastomer, and a combination thereof,

wherein the mixture comprises at least one of: (a) the polyurea and the polyurethane in a first predefined ratio of 60:40 to 80:20, by weight, and (b) the polyurea, the polyurethane, and the silicon elastomer in a second predefined ratio of 60:37:03 to 78:19:03, by weight.

16. The EPS as claimed in claim 15, wherein the mixture comprises the polyurea and the polyurethane in a third predefined ratio of 65:35, by weight.

17. The EPS as claimed in claim 15, wherein the mixture comprises the polyurea, the polyurethane, and the silicon elastomer in a third predefined ratio of 65:32:03, by weight.

18. The EPS as claimed in claim 15, wherein the layer of the predefined thickness of the polymer composition comprises the polyurea and the polyurethane in the first predefined ratio of 60:40 to 80:20, by weight, and is configured to impart flexural strength and elongation strength to the EPS.

19. The EPS as claimed in claim 15, wherein the layer of the predefined thickness of the polymer composition comprises the polyurea, the polyurethane, and the silicon elastomer in the second predefined ratio of 60:37:03 to 78:19:03, by weight,

and is configured to impart an anti-static property along with flexural strength and elongation strength to the EPS.

20. The EPS as claimed in claim 15, wherein the layer of the predefined thickness of the polymer composition coated on the surface of the EPS ranges from 0.5 mm to 1 mm.