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(54) Title: BONDING METHOD TO ATTACH ETHYLENE-BASED POLYMER FOAM WITH VULCANIZED RUBBER

(57) Abstract: A process of adhering a foam structure to a rubber substrate is provided. The foam structure is composed of a first composition comprising a first ethylene-based polymer having a peak melting temperature  $T_{E1}$ . A film composed of a second composition comprising a second ethylene-based polymer having a melt index  $\leq 10$  g/10 min and a peak melting temperature  $T_{E2}$  is applied to the surface of the rubber substrate to form a rubber substrate/film configuration. A compression force is applied at a temperature  $T_v$  ( $38^\circ\text{C} \leq T_{E2} < T_v$ ) to form a vulcanized rubber/film laminate. The foam structure is applied to a surface of the film of the vulcanized rubber/film laminate to form a vulcanized rubber-film laminate/foam configuration. A compression force is applied at a temperature  $T_L$ , wherein  $T_{E2} < T_L < T_{E1}$ ,  $15^\circ\text{C} \leq (T_{E1} - T_L) \leq 40^\circ\text{C}$ , and  $10^\circ\text{C} \leq (T_L - T_{E2}) \leq 70^\circ\text{C}$ , to form a vulcanized rubber-film/foam laminate.



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