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HOT MELT PSA FORMULATIONS FOR LABELS BASED ON A NOVEL SIS POLYMER

Styrene-Isoprene block copolymers (SIS/SI) are well known in the production of hot melt pressure sensitive adhesives (HM PSA). These PSA are formulated by mixing SIS/SI polymer with tackifying resins and plasticisers to obtain a good balance in adhesive properties, these being tack, shear and peel.

The tack, shear and peel required depends on the target application. Most tapes require high shear, which is achieved by selecting SIS polymers with no to low SI diblock. Labels don't require high shear but must demonstrate good tack, occasionally at low temperatures. SIS/SI polymers with high levels of SI diblock have been developed for this application.

TSRC has developed a novel SIS polymer (Vector® 4118ND) with a high diblock of 75% and a low styrene content of 10% which is most suitable for PSA labels. In this presentation formulation guidelines will be given while considering the balance between tack and peel.