

Application

Hot Melt Pressure Sensitive Adhesive (HMPSA) for Construction Flashing Tape

Customer

Branded Products & Private Label Toll Manufacturer

Customer Goals

- Reduce the cost of their current formula
- Establish a leadership position in tapes that contribute to LEED® points

**Situation**

The Manufacturer is a well-respected and forward thinking tape manufacturer & toll processor for nationally branded PSA tape customers. They have been growing rapidly and expanding their presence in multiple market segments, including the construction industry, and wanted to formulate a butyl flashing tape with a “greener” story. Unfortunately after they had qualified and started using a different recycled shingle product, the product was withdrawn from the market. That product, while adequate, had a high moisture content which introduced several processing problems – the product had a tendency to agglomerate which made handling more difficult, and mixing times were extended because the water had to be driven off prior to creating an acceptable HMPSA. Afterwards the Manufacturer resorted to using calcium carbonate as a filler material, which due to its weight, prevented them from utilizing the full capacity of their process vessels.

Action

After testing Harmonite, the customer used Harmonite to meet their goals and has reported multiple benefits.

Results

The customer has been successfully using Harmonite for more than 18 months with no reported problems. Even though Harmonite was more expensive on a per pound basis than calcium carbonate, they have achieved a lower total cost in use and also improved tape performance at the same time. First, because of the nature of Harmonite powders’ polar resin/asphaltene chemistry, the customer was able to lower their cost by reducing the weight percentage of more costly polymers, resins, and processing ingredients. Secondly, Harmonite allowed them to essentially double their operational capacity to produce the adhesive, reporting that the lower specific gravity and good blending capability of Harmonite, as compared to calcium carbonate, allowed them to maximize their batch sizes. Lastly, the customer has reported that the low moisture content of Harmonite (<1%) has shortened their processing time and improved handling when compared to the previous recycled product they had qualified. The customer also reported that Harmonite® increased viscosity and internal strength in the adhesive, both of which contributed to improved sag resistance.