Innovative adhesive technology for durable goods labelling

Solving the low surface-energy labelling challenge

Rubber Hybridized Acrylic adhesive portfolio featuring S8049 and S8029 adhesives

Automotive and other manufacturers are increasingly using low surface energy (LSE) plastics, thanks to their performance, low weight and attractive cost. Such LSE materials offer smooth, modern finishes, and lightweight benefits automotive components such as treated metal bumpers, body trim and interior panels are often now being made with lighter LSE plastics.

The durable and easy-to-clean finishes offered by these materials are also ideal for medical equipment, household appliances and a range of industrial applications.

Unfortunately, conventional adhesives designed to provide long-term stability do not bond easily to LSE materials. A simple way to understand this is to consider a waxed car, where water forms beads instead of spreading out across the surface. LSE plastics have a similar effect on a conventional label adhesive, making adhesive adhesion to the labelled substrate difficult. The lower the surface energy, the weaker the bond.

Strong and durable - RHA technology

Today's manufacturers need labels that not only adhere well but also withstand the harsh chemicals and high temperatures common in automotive and industrial applications. Rubber adhesives are tacky enough, but lack the necessary chemical and temperature resistance. Acrylic adhesives provide chemical and temperature resistance, but are not tacky enough.

Avery Dennison offers an innovative adhesive technology to address this challenge, enabling the creation of labels that retain crucial information on products or personal safety, and which stay in place and remain legible over a product's lifetime.

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label.averydennison.com/durables

Rubber hybridized acrylic (RHA) adhesive technology uses an acrylic network for high cohesion/strength, along with domains of rubber for high adhesion on challenging substrates.

Portfolio characteristics

- Label materials engineered for LSE - plastics and lacquers
- Different adhesive coatweights for various surface structures
- High coatweight version S8049 for rough and also for oil contaminated surfaces (often found in automotive applications)
- Lower coat weight S8029 for smooth surfaces (including lacquers and LSE plastics in home appliances and electronics)
- Available on different polyester films
- Fulfills requirements of automotive OEM specifications
- UL and C-UL recognized

Application areas

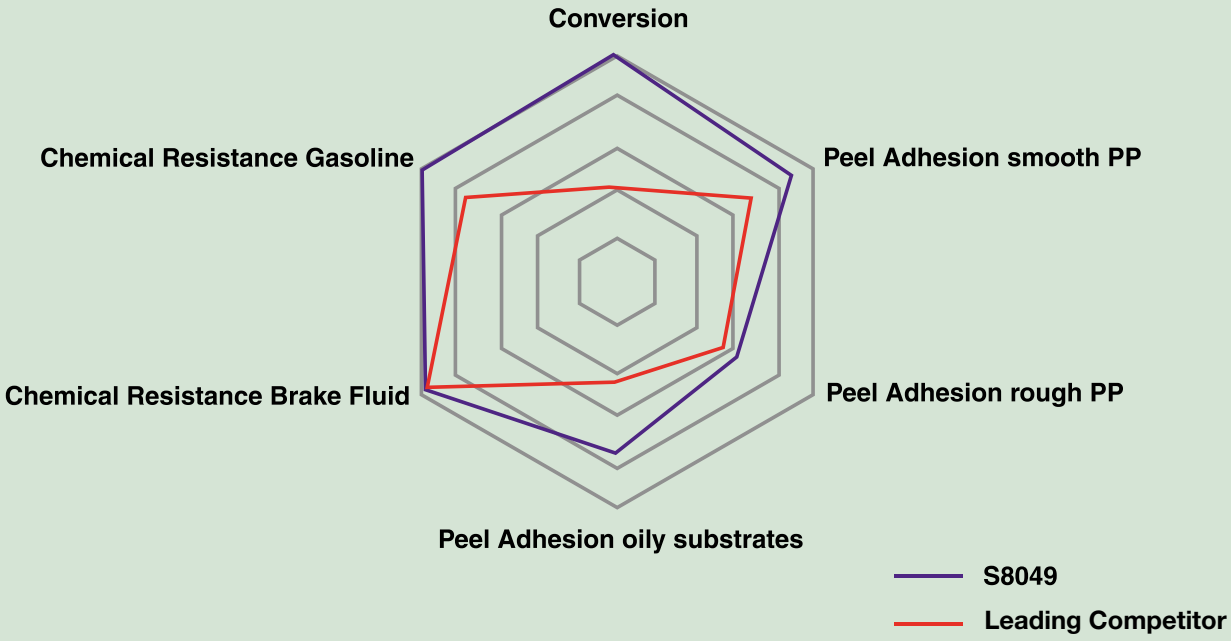
- Automotive industry
- Appliance
- Lawn and garden (Outdoor)
- Industrial segments

Fasson® S8049 and S8029 adhesives

S8049 and its lower coatweight versions are proprietary RHA products, well-suited for use in applications where labels must adhere to rough and smooth LSE substrates.

Compared to widely used alternatives, S8049 and S8029 - based on Avery Dennison RHA technology - are easier to convert, with higher final adhesion values and better chemical resistance.

Groundbreaking adhesion and conversion properties



Product information

Spec	Product description
79453	2 Mil White PET TC - S8049 - 50# SCK - Stock - UL®
79534	2 Mil Matte Chrome PET TC - S8049 - 50# SCK - Stock - UL®
79732	2 Mil White PET TC - S8029 - 50# SCK - Stock - UL®

The RHA adhesives are available with a coat weight of up to 45 g/m²:

- S8049: coatweight 45 g/m². White and silver polyester films and also a transfer tape are available as stock products, with small minimum order quantities.
- S8029: coatweight 27 g/m². White and silver polyester films are available as stock products, with small minimum order quantities.

Conversion recommendations

The innovative formulation of Avery Dennison RHA adhesive ensures less adhesive ooze than alternative products, but the high adhesive coat weight requires special care during die cutting in order to minimise bleed. Recommended precautions include using sharpened dies (contact your tool supplier with sample material); setting up the correct die cutting depth; using rounded corners; maintaining minimum winding tension within shorter rolls; avoiding unnecessary heat exposure during conversion and storage; and ensuring immediate stripping after die cutting.

Benefits

RHA technology combines rubber and acrylic performance to achieve the best of both worlds:

S8049 for exceptional performance on difficult-to-label surfaces

- Copes with rough, slightly oily or very low surface energy substrates (including PE, PP and lacquers)
- Provides high peel adhesion on the most difficult substrates
- High chemical, temperature, UV and ageing resistance
- Up to 20% higher conversion speed than common alternative, with less cleaning on press

S8029 for many applications requiring a high tack adhesive and a long life time

- Suits a majority of durables applications
- Available with a wide range of facestocks

Contact an Avery Dennison sales rep for more information

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