

Re-Visiting the Highly Active Adhesives and Sealants Market

With the once-every-four years World Adhesive & Sealant Conference now completed, it would only be appropriate to provide a brief refresher on the attractive adhesive and sealants subsector within chemicals and materials. Adhesives and sealants are critical to a wide variety of industries, including building and construction, electronics, consumer, transportation, medical and industrials. Adhesives serve to bind materials together and balance structural load. Sealants serve to provide greater flexibility and protection from elements (e.g., air, water). The two are tied together through similar production cycles and source materials. On an airplane, for example, adhesives are used to bond together textiles and fabrics for seating applications, while sealants are used to provide insulation and protect from fire. Adhesives and sealants are mission critical as a failure in performance will have compounding ramifications for the product or brand associated with the end application.

The global adhesives and sealants market is estimated to be north of \$60 billion and is expected to grow in excess of GDP given the increasingly advanced applications (frequently replacing traditional fastening products) and the alignment with industry megatrends. One example of broader market share gain over traditional fastening products is in the consumer segment with non-sewing adhesives that provide higher efficiency and more flexible designs than can be achieved via sewing. Another example of market share gain is via replacing more typical mechanical bonding, enabling lightweighting, more durable qualities and weight bearing in building and construction applications. Major tailwinds supporting adhesives and sealants growth include electrification, e-commerce, mobility, clean energy and hygiene and health.

The adhesives and sealants market can be further thought of between four primary technologies: (i) water-based, (ii) solvent-based and (iii) hot-melt adhesives and sealants. The selection of adhesive or sealant depends on many factors, including the type of substrate, application type or resistance (e.g., environmental, temperature) required. At a high level, solvent-based adhesives utilize solvents as a vehicle for the resin, while water-based adhesives utilize water. Hot-melt adhesives provide short opening and setting times for application, making them particularly attractive to the packaging industry. To be a full service provider within the industry, it is important to have extensive capabilities deep within the adhesive subsets.

Water-based adhesives are formed from water, polymers and additives. They are activated as the water evaporates or as it is absorbed by the substrate. Subsets with water-based adhesives include polyvinyl acetate (PVA), vinyl acetate ethylene (VAE) and acrylic-based emulsion adhesives. PVA adhesives are ideal for porous materials, such as textiles, paper, wood and tissues, while VAE adhesives are better suited for porous applications and possess better flexibility and resistance to water with superior properties. Acrylic-based emulsion adhesives are created from homogeneously emulsifying vinyl acetate or acrylic synthetic resin polymers in water. The benefits of acrylic-based emulsion adhesives help to balance peel, shear and tack.

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Solvent-based adhesives are produced through a mix of solvents and thermoplastics or crosslinked polymers. They have advantages over water-based adhesives when it comes to application (e.g., aerosol spray, brush, coating or roll) and typically provide a heightened level of resistance to external, environmental factors on different substrates. The primary appeal tends to be their strong resistance to chemical exposure and high temperatures. Two common classifications of solvent-based adhesives are wet bonding adhesives and dry bonding (or contact) adhesives. Wet bonding adhesives harden once the solvent evaporates. It is critical that the substrates are bonded while the adhesive is still in the liquid form. Dry bonding adhesives can be applied without the use of clamping and the bond will build over time as the polymers of the adhesives films come together.

Hot-melt adhesives are polymer based and are typically applied as a film or as a line of beads that convert to solid form once the material sets. The benefits of hot melt adhesives include a fast set time because they do not use water or solvents, making them ideal for industrial applications. Ethylene-vinyl acetate (EVA) is a particular copolymer, hot-melt adhesive that can be used in a range of formulations and applications given they bond to many different cellulosic materials (typically the broadest range of substrates among hot-melt adhesives). Another popular hotmelt type is polyolefin adhesives, which provide higher heat resistance and bond strengths when compared to EVAs.

The adhesives and sealants market is increasingly shifting towards more ESG-friendly solutions. The EPA and REACH are both driving adhesive and sealant solutions to no or low VOC levels. With the demand for environmentally friendly construction increasing, adhesives and sealants that are sustainable with renewable and recycled applications are becoming increasingly important. These solutions will require greater levels of industry partnership than in the past, with one such example being H.B. Fuller's 2021 partnership with Covestro to deliver more sustainable adhesive solutions. While care must be taken when reformulating a solution, there is a clear path to a greener future for adhesives and sealants as the value chain transforms from operating in the frame of a linear economy to that of a circular economy.

From the mergers and acquisitions (M&A) side, the adhesives and sealants market has been highly active with multiples continuing to increase. A new high watermark was set with Arkema's (Bostik's) acquisition of Ashland's performance adhesives business unit, which was a multiple of 20.1x the TTM June 2021 EBITDA (as per the Ashland press release) or 17.4x Pro-Forma 2021 EBITDA (if the Arkema announcement is your preference). In any event, if future synergies and tax benefits are folded in, the multiple would be down to an implied 8.7 times by 2026. Double-digit multiples in the industry are not a new phenomenon, as H.B. Fuller paid 11.1x for Wisdom Adhesives, a provider of adhesives for the packaging, assembly and paper converting markets, back in January 2017 (though projected down to 7.2x post-synergies). In the interim, there have been a number of highly successful private equity theses deployed in the space, perhaps most notably with Arsenal Capital's Meridian Adhesives investment. Despite the level of activity over the last several years, the industry is still fairly fragmented at the lower end with additional activity certain to come in the near term.

Our Perspective

Adhesives and sealants is a highly attractive market; while EBITDA margins are typically below 20%, companies in this space continuously trade in the double-digits (based on EV / EBITDA multiple). Bolstering solutions mix towards adhesives and sealants has been a highlight of a number of strategics in the space in re-positioning themselves as specialty materials providers. The high level of performance required by adhesives and sealants makes it a critical input into high-growth categories. Operating synergies are more obtainable in this segment of the chemicals and materials market, which also helps to support strong EV / EBITDA multiples in competitive processes. Because of the importance of the adhesives and sealants applications, the category is highly recession resistant and is projected to grow through a variety of potential macroeconomic scenarios. The sector is still in the early innings of more fully transitioning to Environmental, Social and Governance (ESG)-focused solutions and there will be particular opportunity for those players who are able to align with the circular economy and provide highly effective, eco-friendly solutions.

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