

December 2019

Investment Banking

**Specialty Materials M&A Activity
Increasingly Concentrated in
Less-Cyclical Sub-Sectors**

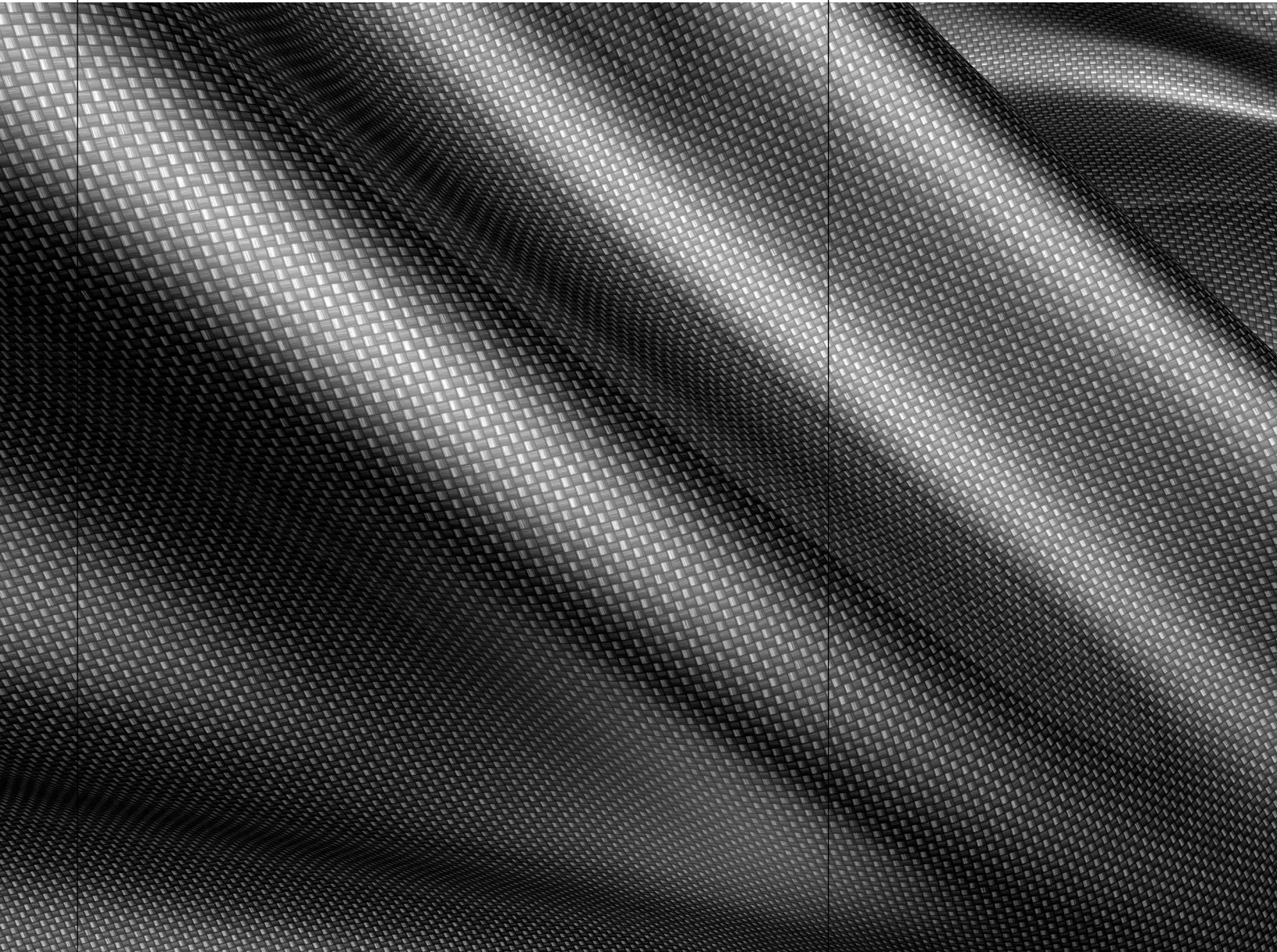
In This Report

Strategic buyers look to
acquire growth

Medical, aerospace & defense, and
coatings command robust interest

Buyers increase diligence focus
on add-on integration and
potential cyclicity

Specialty Materials



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Specialty Materials M&A Activity Increasingly Concentrated in Less Cyclical Sub-Sectors

Overall M&A activity in specialty materials has softened, as the broad market anticipates that the economy’s current expansionary phase could be nearing an end. M&A valuation multiples and the dollar value of deals completed in 2019 have declined relative to 2018, while the number of completed transactions is flat.

A few high-level themes are driving a softer M&A environment. First, economic growth is slowing. In the first two quarters of 2019, industrial production declined 2% relative to the same period in 2018, according to the U.S. Federal Reserve. Secondly, economic uncertainty has increased. According to the Conference Board, CEO confidence is at its lowest level since Q1 2009, limiting some companies’ pursuit of M&A activity. Finally, the last two years have seen many attractive companies already acquired, reducing the potential pool of attractive acquisition targets.

Financial sponsors and strategic investors are focusing more on companies and sectors that are relatively insulated from a potential economic downturn. Businesses serving less cyclical end-markets continue to transact at strong multiples, while their more cyclical counterparts have seen decreasing interest and valuations. Highlighting this trend, deal activity has been particularly strong for specialty materials companies with a strong presence in the medical and aerospace and defense (A&D) end-markets. Companies with automotive and semiconductor exposure have experienced decreased interest.

Strategic Buyers Look to Acquire Growth

Corporate earnings are broadly declining as we approach the end of

the current expansionary economic cycle. In 2019, publicly traded specialty materials companies saw earnings growth stabilize, following three consecutive years of healthy growth. Earnings growth trends in 2019 primarily have been driven by the softness in industrial production in the first two quarters. As organic growth stalls, corporations are turning to M&A to drive continued growth and support historically high valuations. In addition, we have seen an increase in cross-border M&A activity by strategic investors, particularly by Asian and European strategics, as companies seek to build a U.S. presence to help de-risk potential trade policy risks and continue expanding capabilities.

In February 2019, Japan-based AGC acquired U.S.-based Taconic’s Advanced Dielectric Division as well as part of its industrial composite film business. William Blair advised

Taconic on this transaction, which strengthens AGC’s mobility- and electronics-related businesses. Also in February 2019, Japan-based Teijin agreed to acquire Renegade Materials, a U.S.-based supplier of specialty materials for the aerospace industry.

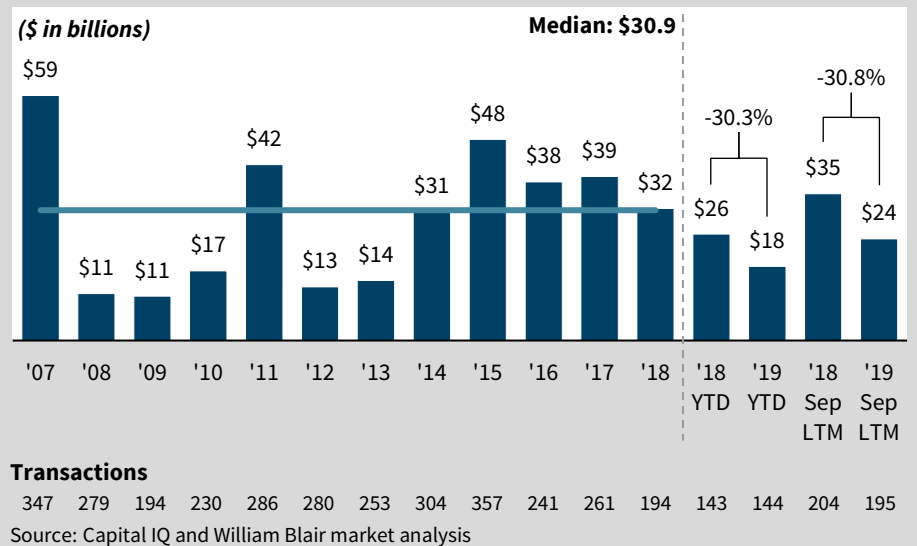
European strategic buyer cross-border activity in 2019 includes HEXPOL’s acquisition of Preferred Compounding in July and Avon Rubber’s acquisition of 3M’s advanced ballistic-protection business in August. William Blair served as financial advisor to the seller in both of these transactions.

Medical Commands Robust Interest

M&A multiples for specialty materials companies with sizable exposure to the medical industry remain at heightened levels, and interest from both private equity and strategic acquirers remains strong. In addition

Specialty Materials M&A – Transaction Value

M&A activity has softened overall in the specialty materials sector in 2019 as valuations have pulled back. But less cyclical sectors—including medical, aerospace and defense, and coatings—continue to benefit from strong interest from strategic and financial acquirers.



to the supportive demographic trends driving the growth of the medical industry, the sector's lack of cyclicality and its need for highly specialized solutions make it very attractive to investors.

Significant growth-related capital investment initiatives are becoming more prevalent in the medical space as deal multiples remain at heightened levels. Many businesses are choosing to invest organically at more attractive ROIs rather than pursue M&A at today's elevated multiples. In particular, specialty materials companies are investing in cleanroom technology to meet growing demand. In June 2019, Wisconsin-based MGS Manufacturing Group announced a \$20 million investment for more cleanroom capacity. In October 2019, New York-based Tessy Plastics announced it would expand cleanroom manufacturing with an additional investment of \$20 million.

The medical segment of the specialty materials market has also seen a recent increase in non-traditional buyers. For example, in November 2019, William Blair advised Bal Seal Engineering on its acquisition by Kaman, a company that traditionally focused on the A&D end-market. Kaman saw the acquisition as an opportunity to expand its product portfolio and increase exposure to the medical market.

Financial sponsors have also shown strong interest in specialty materials companies that cater to the medical industry. For example, in September 2019, William Blair advised GCM, an outsourced manufacturer of high-precision components and assemblies for the medical technology industry, in its sale to Avista Capital Partners.

Aerospace and Defense Benefits from Strong Tailwinds

The A&D sector is another focus area for investors, as global demand for aircraft is projected to grow steadily and specialty materials content continues to be increasingly important in modern aircraft platforms. This is resulting in transaction multiples for A&D-focused companies exceeding industry averages.

In July 2019, William Blair advised Arcline Investment Management on its acquisition of Integrated Polymer Solutions, a maker of elastomeric components primarily for aerospace applications. Another example is Sekisui Chemical's acquisition of AIM Aerospace, a designer and producer of structures, systems, engine components, and thermoplastic technology for the global aerospace industry, in November 2019.

Coatings Seen as a Defensive Sector Ripe for Consolidation

Coatings companies are generally viewed as stable and defensive, as they provide strong diversification across end-markets and technologies. Furthermore, the sector remains very fragmented and features strong margins, relatively stable and predictable demand patterns, and significant barriers to entry in many markets due to qualification and certification requirements. These characteristics are resulting in the coatings sector seeing robust interest from financial sponsors and strategic investors and increasing valuations over the past several years.

Several transactions took place in the coatings market in 2019. For example, William Blair advised Arsenal Capital Partners on its acquisition of Seal for Life in July and Loparex on its acquisition by Pamplona Capital

Management in August. Also in July, Hartmann Group acquired Safran Coating, and in May, Parker Hannifin acquired Lord Corporation.

Buyers Increase Diligence Focus on Integration and Cyclicality

In 2019, we saw two diligence areas gain increased attention—add-on integration and potential cyclicality of businesses.

First, evidence of successful integration has become a unifying theme across private equity platforms and add-on acquisitions in the specialty materials space. As the add-on strategy has continued to proliferate among private equity firms, buyers have become more disciplined on buying integrated platforms that actually derive synergies from acquisitions versus pure EBITDA consolidators.

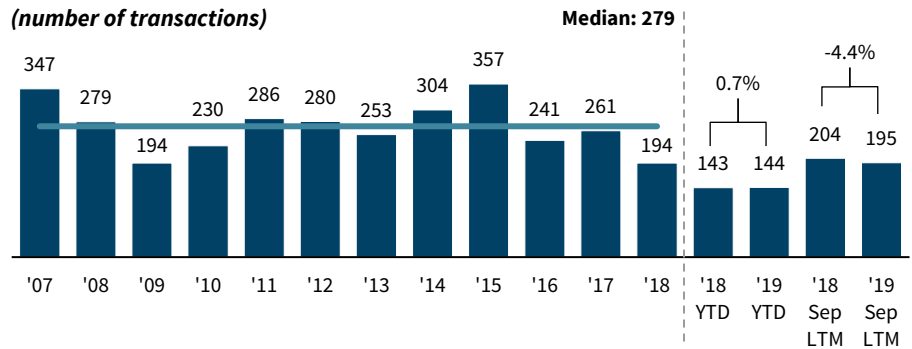
Second, cyclicality is another key focus area for investors, and more cyclical businesses are being penalized in terms of valuations. In particular, buyers are paying close attention to how targets performed in the most recent downturn and placing more scrutiny on how they are expected to perform in the next recession. Sectors most affected by this trend include building and construction and automotive more broadly. However, certain sub-sectors of the auto market, including the noise, vibration, and harshness sub-sector, continue to see strong interest.

Specialty Materials Market Analysis

We look behind the numbers to examine the market dynamics that are driving trends in the dealmaking landscape in the specialty materials sector.

Specialty Materials M&A – Deal Volume

The number of transactions in the specialty materials industry is flat on a YTD basis relative to 2018 and down approximately 4% on a LTM basis. Investors have increased their focus on more defensive sub-sectors, while private equity add-on acquisition activity has increased relative to platform-building activity.

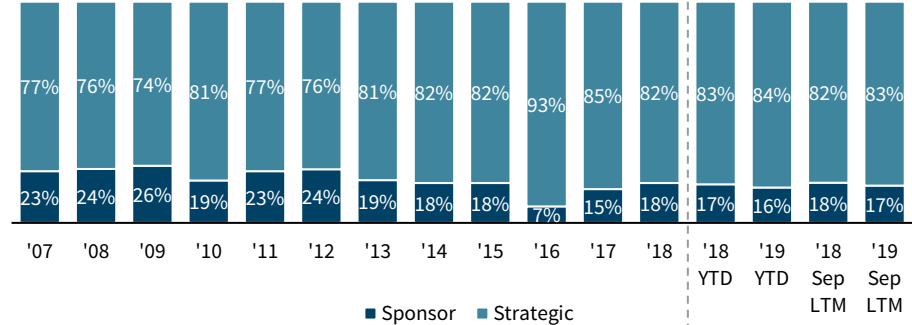


Source: Capital IQ and William Blair market analysis

Strategic Buyer Activity

Strategic buyers continue to represent a large proportion of M&A transactions completed in the specialty materials space, particularly when viewed on a long-term historical basis.

Breakdown of Acquirers by Type

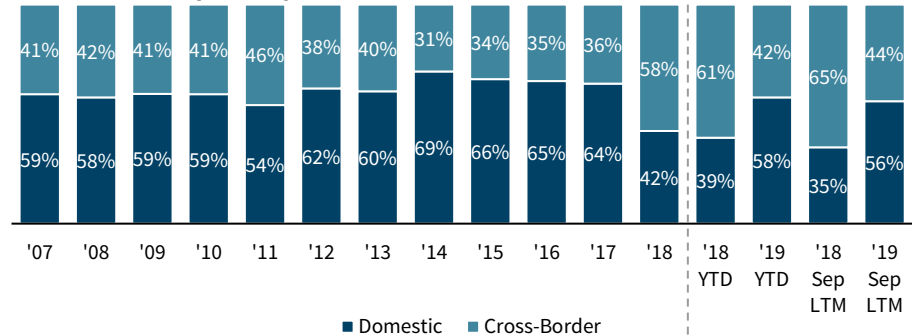


Sources: Capital IQ and William Blair market analysis

Domestic Versus Cross-Border Activity

Although down from 2018 levels, cross-border deal activity remains elevated in 2019 relative to historical levels.

Breakdown of Acquirers by Location

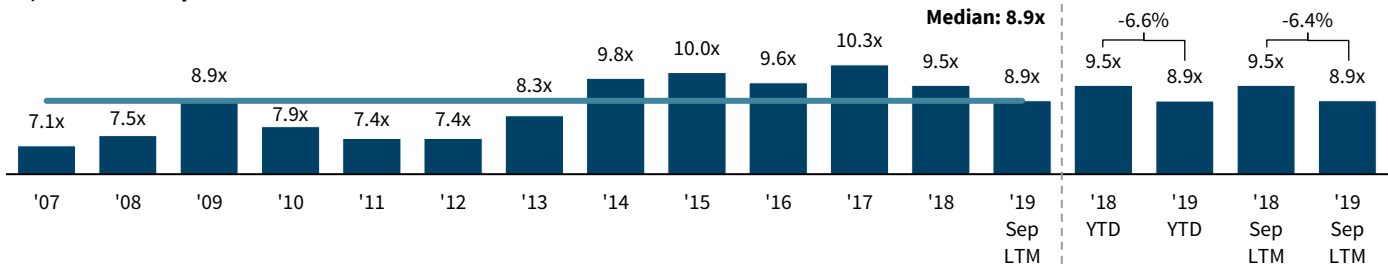


Sources: Capital IQ and William Blair market analysis

M&A Valuations in Specialty Materials

In 2019 there was a modest decline in specialty materials valuations following the record highs experienced over the last few years. Buyers have been more cautious, particularly around more cyclical assets. Valuations, however, remained relatively high for companies in less cyclical or high margin end-markets such as medical and aerospace, as buyers showed a willingness, in certain instances, to exchange long-term growth for near-term stability based on a belief that the economy's current expansion phase could be nearing an end.

EV / EBITDA Multiple – Median



Note: Data represents global transactions announced in the specialty materials sector. Transactions with multiples that are not meaningful are categorized as undisclosed

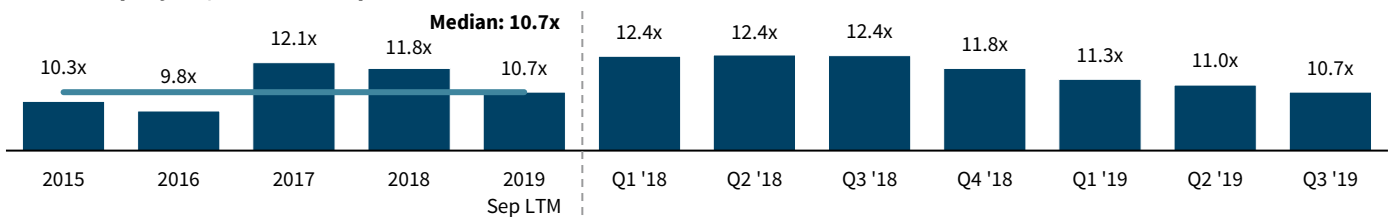
Sources: Capital IQ and William Blair market analysis

Public Company Valuations in Specialty Materials

Despite pulling back from 2017's robust levels, valuations for publicly traded specialty materials companies are still only modestly below the industry median since 2015 of 10.7x. The declining valuation levels observed at the end of 2018 through 2019 were driven by a broad market decline, as well as declines in industrial production.

Due to slowing growth, specialty materials companies continue to look to M&A to drive growth. However, specialty materials companies are also very focused on ways to optimize their existing businesses via divestitures and operational initiatives that can help facilitate growth and margin expansion.

Public Company EV / EBITDA Multiple – Median

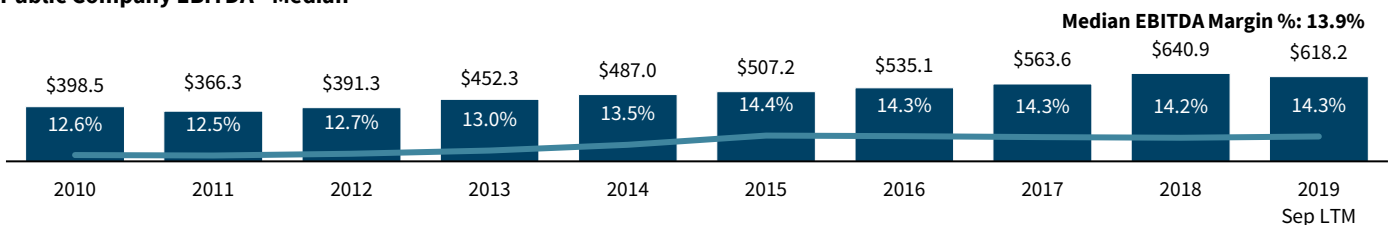


Source: Capital IQ as of September 30, 2019

Earnings Stabilizing for Public Specialty Materials Companies

Earnings in 2019 for William Blair's group of publicly traded specialty materials companies stabilized, following three consecutive years of healthy growth. In 2019 thus far, earnings were primarily impacted by the softness in industrial production in the first two quarters. Additionally, uncertainty relating to international trade and a dynamic geopolitical environment began to place pressure on earnings growth and may continue going forward.

Public Company EBITDA - Median



Source: Capital IQ as of September 30, 2019

Drawing on our deep sector expertise and the strength of our relationships, William Blair has built a leading specialty materials franchise. Business owners turn to us for outstanding execution for their M&A and capital-raising objectives.

Recent transactions include:

<p>\$330,000,000</p>  <p>has agreed to be acquired by</p>  <p>Pending</p> <p>Custom PTFE Seals, Springs, and Contacts</p>	<p>\$115,000,000</p>  <p>Advanced Ballistic-Protection Business has agreed to be acquired by</p>  <p>Avon Rubber p.l.c. Pending</p> <p>Advanced Ceramics for Defense</p>	<p>Not Disclosed</p>  <p>has been acquired by</p>  <p>August 2019</p> <p>Silicone Release Liners</p>
<p>Not Disclosed</p>  <p>has been acquired by</p>  <p>July 2019</p> <p>Sustainable Plastic Solutions</p>	<p>\$231,600,000</p>  <p>has been acquired by</p>  <p>July 2019</p> <p>Specialty Elastomeric Compounds</p>	<p>Not Disclosed</p>  <p>has acquired</p>  <p>July 2019</p> <p>Industrial Coatings and Composites</p>
<p>Not Disclosed</p>  <p>Asian Business & Global ADD Assets has been acquired by</p>  <p>June 2019</p> <p>PTFE and Silicone Composites</p>	<p>Not Disclosed</p>  <p>has been acquired by</p>  <p>March 2019</p> <p>Securement Packaging</p>	<p>Not Disclosed</p>  <p>has acquired</p>  <p>December 2018</p> <p>Specialty Plastic Sheet</p>

**William Blair
By the Numbers***

400+

bankers globally with local cultural knowledge

20

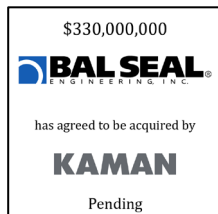
offices worldwide

\$335+ billion

in M&A advisory and financial transactions

*In the past five years as of June 30, 2019

William Blair Spotlight on Recent Transactions



Bal Seal Engineering is a global leader in the development and supply of custom, highly engineered springs, PTFE seals, and contacts for the medical technology, aerospace & defense, industrial, energy, and transportation end-markets. Bal Seal's proprietary materials and manufacturing technologies allow them to provide critical, proprietary, precision components that are used in high cost of failure environments (e.g., neuromodulator devices, F-35 aircraft, and liquid chromatography instrumentation).

- Kaman was attracted to the opportunity to expand the breadth of its material science capabilities and product offering, increase exposure to attractive high-growth markets (e.g., medical, A&D), and expand its margin profile
- William Blair crafted a process that allowed Bal Seal to understand the cultural fit with potential strategic and financial buyers, while enabling an expedited timeline that drove multiple parties to the final stage in the process
- Transaction signed four weeks after initial indications, before management presentations, given the scarcity value of the business and strong management team



3M's Advanced Ballistic Protection Business (formerly known as Ceradyne) is a leading provider of next-generation ceramic armor solutions, including configurable ballistic helmets, ceramic body armor, and vehicle flat armor. 3M's total product lifecycle capabilities and highly technical design and advanced materials science expertise positions the business at the forefront of cutting-edge, smart-armor technologies.

- Proactively positioned market leadership in advanced ceramic applications for technical, mission critical uses and the associated future organic and inorganic growth opportunities
- Avon Rubber was attracted to the opportunity to significantly expand its protective product portfolio and realize cross-selling opportunities across businesses; enhance its R&D capabilities; and deepen its presence in, and relationships with, the U.S. Department of Defense
- William Blair designed a highly competitive, targeted process focused on the most likely global strategic buyers and financial sponsors



Loparex is a leading, global manufacturer of custom silicone release liners, serving customers across a broad range of end-markets (e.g., medical, graphic arts, industrial, tapes, hygiene) with in-depth material and technical coating expertise and industry-leading production technologies.

- Pamplona was attracted to the M&A consolidation opportunity via Loparex's leadership position in a highly fragmented market; shortly after the transaction, Pamplona acquired Infiara, another release liner business, in a highly synergistic transaction
- William Blair proactively positioned Loparex's multifaceted organic and inorganic growth
- William Blair designed a highly competitive and targeted outreach resulting in an expedited process that drove multiple parties to the final stage of the process, with a signed transaction five weeks after initial indications

Specialty Materials Investment Banking

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William Blair Spotlight on Recent Transactions



Revolution is a leading green technology manufacturer of blown film and bag serving plastics markets such as agricultural film (e.g., irrigation, silage), foodservice (e.g., can liners, carry out bags), and commercial/construction (e.g., bags, sheeting). Revolution Plastics offers an innovative, closed-loop model in agricultural films, where it entirely owns and controls the manufacture, collection, recycling, and resale of its products.

- Arsenal was attracted to Revolution Plastics' on-point sustainability thesis and the opportunity to benefit from strong industry tailwinds attributable to recent regulation and an increasing focus on sustainable plastic packaging
- Early buyer engagement through Revolution Plastics' participation in William Blair's Family Office Convening in 2018 and premarketing meetings built rapport with buyers and helped them develop an early investment thesis with Revolution Plastics
- Sell-side process was pre-empted prior to launch given the attractiveness of the business model and management team



Preferred Compounding is the established No. 2 player in the North America custom, specialty elastomeric compounding market, serving customers across the automotive, general industrial, infrastructure, and other end-markets. Preferred focuses on highly technical compounds used in critical applications by leveraging its deep material science expertise and manufacturing capabilities.

- Hexpol was attracted to the opportunity to enhance its high-performance elastomer capabilities and increase its value proposition to customers in the U.S. and Mexico region with an improved footprint and leading research, development, and engineering services
- William Blair proactively positioned Preferred's differentiated position within the automotive market that is driving growth well above automotive build rates
- William Blair designed a process focused on early engagement with key strategic players in the polymer compounding value chain and financial sponsors to allow for strategic buyers to develop synergy analyses and financial sponsors to understand the broader compounding platform opportunity



Seal for Life offers corrosion protection, coating, and sealing solutions for the infrastructure, oil & gas, water, and renewables industries. Seal for Life's portfolio provides maintenance and repair solutions that prolong the life and durability of critical applications, such as water and oil pipelines, tanks and terminals, power generation and petrochemical infrastructure.

- Seal for Life will serve as Arsenal's platform in the coatings sector, with a focus on the infrastructure and industrial markets
- Arsenal was attracted to Seal for Life's excellent market reputation for providing its customers with the highest level of performance and quality to meet stringent regulatory requirements, in addition to the fragmented nature of the coatings market
- William Blair leveraged its knowledge of the coatings market and carve-out transactions to provide guidance to Arsenal on future growth strategies, such as add-on acquisition ideas, valuation, and due diligence considerations, in addition to providing leverage finance advisory services

William Blair Spotlight on Recent Transactions



Taconic is a global leader in the design and manufacturing of custom, advanced polytetrafluoroethylene (PTFE) and silicone composite-based solutions such as coated fiberglass fabrics, tapes, belts, architectural fabrics, radio frequency laminates, and flexible interconnect materials for a broad range of end-markets, including food processing, telecom, packaging, aerospace & defense, and automotive.

- Asahi Glass (AGC) acquired the global operations of the Advanced Dielectric Division and a portion of the Industrial Products division from Taconic to expand its footprint as a manufacturer and supplier of high-performance materials and solutions in the next-generation high-speed communications markets
- William Blair proactively positioned Taconic's deep material science expertise and proprietary coating and laminating technology that allows Taconic to serve both stable end-markets (e.g., food processing, packaging) and the high-growth 5G and automotive radar markets
- William Blair designed a targeted, global process that provided the seller with carve-out optionality, enabled robust engagement from an international buyer universe, and ensured a strong competitive dynamic to the final stage of the process



Polychem is a vertically integrated provider of securement and protective packaging, including the processing of recycled post-consumer PET. Polychem's products include polyester and polypropylene strapping consumables and complementary strapping solutions from the most basic manual tools to large, engineered systems.

- William Blair proactively positioned Polychem's leadership position and ability to drive future growth through existing distributor relationships
- Sterling Group was attracted to the opportunity to further grow the previously family/founder-owned business and expand the systems segment to migrate to more of a razor/razorblade business model
- William Blair created a competitive, global process yielding strong interest from multiple strategic and financial parties



Plaskolite is North America's largest provider of custom transparent thermoplastic sheet and value-added service (e.g., coatings) for windows, doors, lighting, signs, point-of-purchase displays, and bath products.



- PPC Partners was attracted to Plaskolite's long-standing market leadership, sustainable competitive advantages based on its customized product approach, and tremendous future organic and accretive acquisition growth opportunities
- William Blair leveraged its strong knowledge of the rigid thermoplastic sheet sector and long-standing relationship with Plaskolite to provide guidance to PPC Partners on process tactics, valuation, due diligence considerations, negotiations, and future growth strategies, including add-on acquisition ideas
- William Blair also advised Plaskolite on its sale to Charlesbank Capital Partners in 2015

Sector and Transaction Data

Recent Notable Specialty Materials Transactions



Closed: November 2019

Observations/Rationale:

<p>Target:  United States</p> <p>Acquirer:  United States</p> <p>Key Metrics: Implied Enterprise Value (\$M): EV/LTM EBITDA:</p>	<p>NA NA</p>	<p>Providien is a leading provider of comprehensive manufacturing solutions for global medical device OEMs, including thermoforming, medical device contract manufacturing, precision machining & metals, and medical injection molding. Providien's solutions portfolio includes a broad range of applications, such as catheters, spinal instruments, surgical robotics, and medical trays.</p> <p>Carlisle is a diversified, global portfolio of niche brands and businesses that manufacture highly engineered products and solutions across commercial roofing, specialty polyurethane, architectural metal, aerospace, medical, defense, transportation, industrial, protective coating, auto refinishing, agriculture, mining, and construction.</p> <ul style="list-style-type: none"> • Carlisle's acquisition of Providien is another example of a growing trend in medical manufacturing transactions, whereby industrial-focused strategic buyers are growing increasingly interested in medical-focused acquisition targets. Carlisle's medical business is a part of its Interconnect Technologies business that is about 21% of total revenue • Providien brings significant scale and addresses key gaps in Carlisle's existing medical offering, in addition to providing access to adjacent medical markets such as drug delivery and oncology
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Closed: October 2019

Observations/Rationale:

<p>Target:  United States</p> <p>Acquirer:  United States</p> <p>Key Metrics: Implied Enterprise Value (\$M): EV/LTM EBITDA:</p>	<p>\$3,675 15.1x</p>	<p>Lord offers a broad array of advanced adhesives, coatings, specialty materials as well as vibration and motion control technologies, which are primarily sold to customers in the aerospace, auto, and industrial markets. Lord focuses on proprietary products for mission-critical applications, such as rubber-to-substrate bonding, thermal management, structural adhesives, and vibration control.</p> <p>Parker-Hannifin provides motion and control technologies, specialty materials, and engineered components for diverse end-markets. Parker operates through two segments, Diversified Industrial and Aerospace Systems.</p> <ul style="list-style-type: none"> • Lord significantly expands Parker's material science capabilities, and the combined business is expected to drive accelerated growth across aerospace, lightweighting, and electrification • Lord's roughly 8% three-year sales CAGR and roughly 23% EBITDA margins are well above Parker's; additionally, there will be about \$125 million of expected cost synergies over the next five years that should increase the EBITDA of the Engineered Materials group by about 300 basis points • Following the Lord acquisition, the Engineered Materials group is the largest business within Parker
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Announced: September 2019

Observations/Rationale:

<p>Target:  United Kingdom</p> <p>Acquirer:  Germany</p> <p>Key Metrics: Implied Enterprise Value (\$M): EV/LTM EBITDA:</p>	<p>\$324 6.7x</p>	<p>Low & Bonar is a global manufacturer of technical coated fabrics, primarily spunlaid nonwovens, produced from polymer-based yarns and fibres. Low & Bonar's solutions are used across transportation, interior décor, filtration, buildings, roofing, and erosion control.</p> <p>Freudenberg is a leading global manufacturer of innovative material solutions across diverse end-markets, including automotive, construction, energy, medical, and aerospace.</p> <ul style="list-style-type: none"> • Low & Bonar further expands Freudenberg's spunlaid business from primarily one-step production processes to more two-step processes that provide greater flexibility and customization • Low & Bonar will allow Freudenberg to offer customers in the construction, building interiors, home textiles, and automotive markets a broader product offering • Freudenberg will leverage its global operations to expand Low & Bonar's international presence, notably in the United States and China
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Closed: August 2019**Observations/Rationale:**

Target:



United States

Acquirer:



Japan

Key Metrics:

Implied Enterprise Value (\$M):

NA

EV/LTM EBITDA:

NA

Renegade Materials is a leading North American supplier of highly heat-resistant thermoset prepregs for the aerospace industry. Renegade offers specialized know-how in heat-resistant resins and provides unique thermal-cycle resistant prepregs incorporating highly heat-resistant polyimide resin made from low-toxicity raw materials.

Teijin is a leading, global specialty materials provider focused on high-performance fibers such as aramid, carbon fibers and composites, healthcare, films, resin and plastic processing, polyester fibers, and other materials converting.

- Renegade will allow Teijin to expand its business in the aerospace composites market including next-generation aircraft engine parts
- Teijin's expertise in carbon fibers and intermediate materials, as well as its global sales network, will allow Renegade's products to expand into new end-markets and reach a broader potential customer base

Closed: January 2019**Observations/Rationale:**

Target:



United States

Acquirer:



United States

Key Metrics:

Implied Enterprise Value (\$M):

\$160

EV/LTM EBITDA:

11.9x

ARC Technologies manufactures RF and microwave absorbing composite materials for the aerospace and industrial markets. ARC has a wide range of capabilities for producing RF / EMI and microwave absorbing materials and specializes in combining absorptive metallic filler compounds with a proprietary blend of polymer resins to generate various matrix materials including structural composites and thermoplastics.

Hexcel is a global leader in advanced structural materials, including carbon fiber, specialty reinforcements, resins, honeycombs, adhesives, and prepregs, for the commercial aerospace, defense, space, and industrial markets.

- ARC strengthens Hexcel's existing advanced materials portfolio in structural composites and thermoplastics, in addition to providing new opportunities for growth and market penetration
- Hexcel expects that the combination of two strong R&D teams will enable them to further develop next-generation products for commercial aerospace, military aerospace, and defense applications
- ARC's business includes an MRO component (about 30%) that will allow Hexcel to expand its minimal MRO offering
- ARC's EBITDA margins of 27% are slightly above Hexcel's margins of 24%

Closed: January 2019**Observations/Rationale:**

Target:



United States

Acquirer:



United States

Key Metrics:

Implied Enterprise Value (\$M):

\$120

EV/LTM EBITDA:

NA

Fiber-Line provides high-performance fibers for the fiber optic, oil & gas, industrial, and consumer markets. Leveraging its coating technology, polymer formulations, and processing technology, Fiber-Line is able to engineer specified performance characteristics for fiber.

PolyOne is a provider of specialty polymer materials, services, and solutions, including additives, liquid colorants and fluoropolymers, silicone colorants, and engineered materials.

- The acquisition of Fiber-Line, and subsequent divestiture of the Performance Products & Solutions Business continues PolyOne's evolution into a specialty, engineered materials solutions provider
- PolyOne will leverage its deep complementary formulation expertise and global commercial presence to accelerate Fiber-Line's growth

Public Comparables

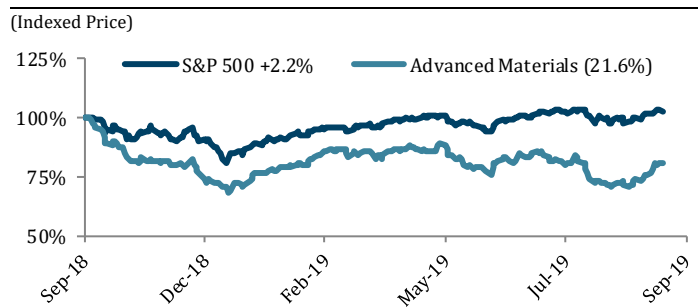
Advanced Materials

Select Comparable Public Company Metrics

Company	Stock Price Change Since 9/30/2018	LTM Financials		LTM Margins		Valuation					
		Revenue	EBITDA	Gross Profit	EBITDA	OCF Margin ⁽¹⁾	Market Cap	Enterprise Value	EV/LTM Revenue	EV/LTM EBITDA	Net Debt/EBITDA
Rogers Corporation	(7.2%)	\$927	\$180	35.4%	19.4%	14.1%	\$2,537	\$2,572	2.77x	14.3x	0.0x
Morgan Advanced Materials plc	(26.1%)	\$1,371	\$206	13.5%	15.0%	9.5%	\$911	\$1,291	0.94x	6.3x	1.7x
AGC Inc.	(25.4%)	\$13,987	\$1,981	26.8%	14.2%	0.4%	\$6,857	\$13,996	1.00x	7.1x	2.9x
Materion Corporation	1.4%	\$1,203	\$81	22.5%	6.7%	4.5%	\$1,252	\$1,227	1.02x	15.1x	NM
Victrix plc	(39.1%)	\$386	\$169	62.0%	43.8%	36.6%	\$2,290	\$2,229	5.78x	13.2x	NM
Schweitzer-Mauduit International, Inc.	(2.3%)	\$1,033	\$196	27.4%	18.9%	16.3%	\$1,157	\$1,700	1.65x	8.7x	2.6x
Sumitomo Bakelite Company Limited	(13.3%)	\$1,928	\$239	30.0%	12.4%	7.3%	\$1,837	\$1,742	0.90x	7.3x	NM
Mean	(16.0%)	\$2,977	\$436	31.1%	18.6%	12.7%	\$2,406	\$3,537	2.01x	10.3x	1.8x
Median	(13.3%)	\$1,203	\$196	27.4%	15.0%	9.5%	\$1,837	\$1,742	1.02x	8.7x	2.1x

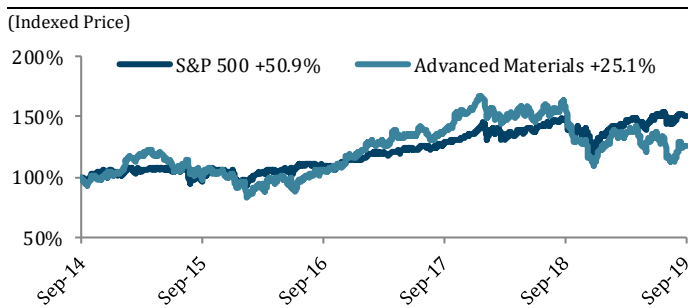
(1) Operating cash flow (OCF) calculated as EBITDA less capital expenditures
Source: Capital IQ as of September 30, 2019

Indexed Stock Performance - Last 12 Months



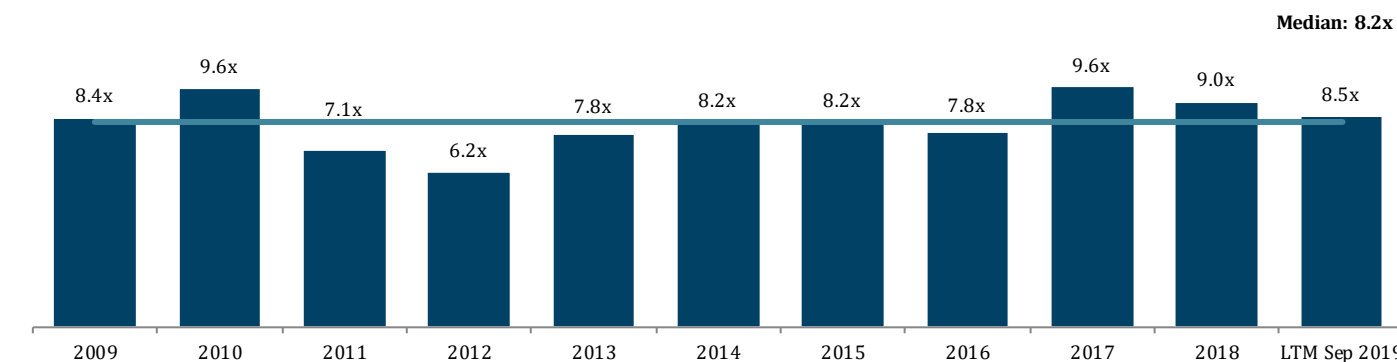
Source: Capital IQ as of September 30, 2019
Note: Market capitalization weighted index

Indexed Stock Performance - Last 5 Years



Source: Capital IQ as of September 30, 2019
Note: Market capitalization weighted index

Valuation Multiples - LTM EBITDA



Source: Capital IQ as of September 30, 2019

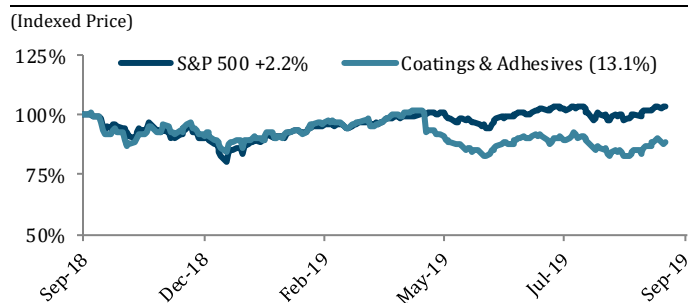
Coatings & Adhesives

Select Comparable Public Company Metrics

Company	Stock Price Change Since 9/30/2018	LTM Financials		LTM Margins		Valuation					
		Revenue	EBITDA	Gross Profit	EBITDA	OCF Margin ⁽¹⁾	Market Cap	Enterprise Value	EV/LTM Revenue	EV/LTM EBITDA	Net Debt/EBITDA
Akzo Nobel N.V.	(15.3%)	\$10,323	\$1,101	42.3%	10.7%	8.8%	\$18,529	\$19,217	1.86x	17.5x	0.9x
GCP Applied Technologies Inc.	(27.5%)	\$1,031	\$132	37.5%	12.8%	7.0%	\$1,399	\$1,507	1.46x	11.4x	0.6x
H.B. Fuller Company	(9.9%)	\$2,926	\$406	28.2%	13.9%	11.5%	\$2,374	\$4,376	1.50x	10.8x	4.9x
PPG Industries, Inc.	8.6%	\$15,119	\$2,319	42.4%	15.3%	12.6%	\$28,003	\$33,329	2.20x	14.4x	2.1x
RPM International Inc.	6.0%	\$5,577	\$687	41.2%	12.3%	9.7%	\$8,923	\$11,219	2.01x	16.3x	3.9x
Sika AG	(0.0%)	\$7,413	\$1,194	53.1%	16.1%	13.8%	\$18,885	\$23,110	3.12x	19.4x	3.5x
3M Company	(22.0%)	\$31,970	\$7,920	48.0%	24.8%	19.5%	\$94,576	\$108,515	3.39x	13.7x	1.6x
Avery Dennison Corporation	4.8%	\$7,066	\$974	26.8%	13.8%	10.6%	\$9,566	\$11,505	1.63x	11.8x	1.9x
Mean	(6.9%)	\$10,178	\$1,842	39.9%	15.0%	11.7%	\$22,782	\$26,597	2.15x	14.4x	2.4x
Median	(5.0%)	\$7,239	\$1,037	41.8%	13.8%	11.0%	\$14,047	\$15,361	1.94x	14.0x	2.0x

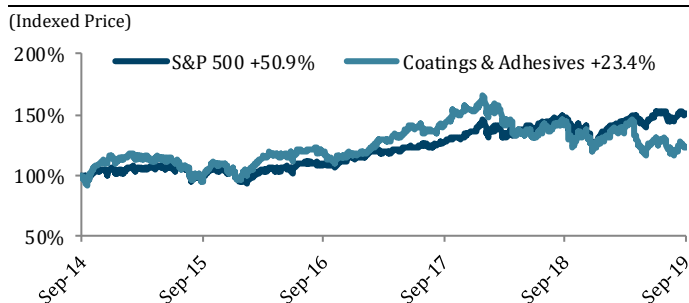
(1) Operating cash flow (OCF) calculated as EBITDA less capital expenditures
Source: Capital IQ as of September 30, 2019

Indexed Stock Performance – Last 12 Months



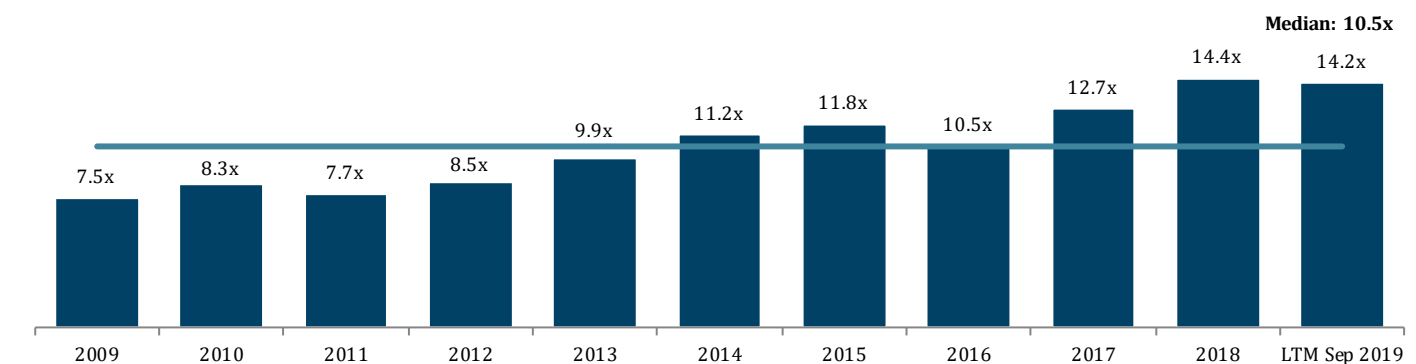
Source: Capital IQ as of September 30, 2019
Note: Market capitalization weighted index

Indexed Stock Performance – Last 5 Years



Source: Capital IQ as of September 30, 2019
Note: Market capitalization weighted index

Valuation Multiples – LTM EBITDA



Source: Capital IQ as of September 30, 2019

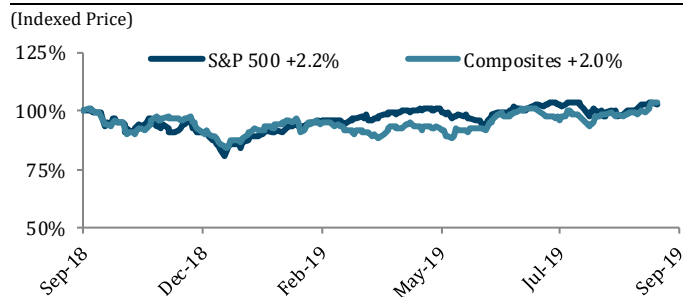
Composites

Select Comparable Public Company Metrics

Company	Stock Price Change Since 9/30/2018	LTM Financials		LTM Margins		Valuation					
		Revenue	EBITDA	Gross Profit	EBITDA	OCF Margin ⁽¹⁾	Market Cap	Enterprise Value	EV/LTM Revenue	EV/LTM EBITDA	Net Debt/EBITDA
FACC AG	(48.5%)	\$870	\$65	9.4%	7.5%	4.3%	\$538	\$774	0.89x	11.8x	3.7x
Gurit Holding AG	58.2%	\$501	\$73	22.6%	14.5%	10.9%	\$626	\$698	1.39x	9.6x	1.0x
Schweiter Technologies AG	(21.7%)	\$1,131	\$111	44.3%	9.8%	7.6%	\$1,365	\$1,326	1.17x	12.0x	NM
Toray Industries, Inc.	(1.3%)	\$21,342	\$2,332	19.1%	10.9%	4.2%	\$11,872	\$20,132	0.94x	8.6x	3.1x
Hexcel Corporation	22.5%	\$2,352	\$563	27.4%	24.0%	15.6%	\$6,988	\$8,126	3.45x	14.4x	2.0x
Teijin Limited	0.0%	\$8,143	\$982	30.2%	12.1%	4.9%	\$3,684	\$5,980	0.73x	6.1x	2.3x
Mean	1.5%	\$5,723	\$688	25.5%	13.1%	7.9%	\$4,179	\$6,173	1.43x	10.4x	2.4x
Median	(0.7%)	\$1,742	\$337	25.0%	11.5%	6.3%	\$2,524	\$3,653	1.06x	10.7x	2.3x

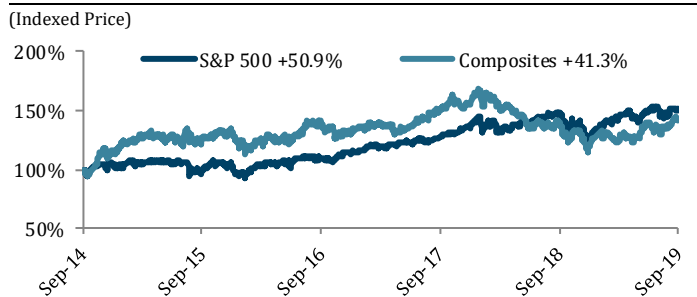
(1) Operating cash flow (OCF) calculated as EBITDA less capital expenditures
Source: Capital IQ as of September 30, 2019

Indexed Stock Performance – Last 12 Months



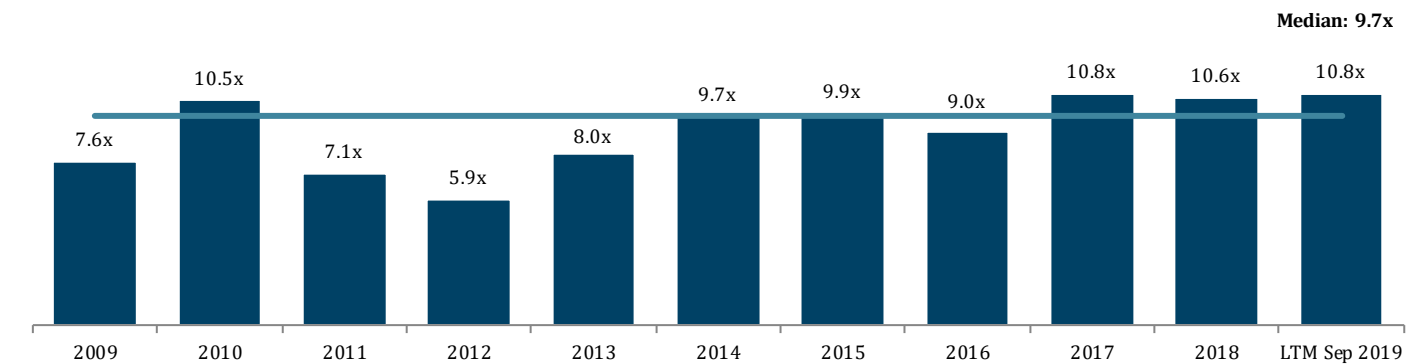
Source: Capital IQ as of September 30, 2019
Note: Market capitalization weighted index

Indexed Stock Performance – Last 5 Years



Source: Capital IQ as of September 30, 2019
Note: Market capitalization weighted index

Valuation Multiples – LTM EBITDA



Source: Capital IQ as of September 30, 2019

Compounding

Select Comparable Public Company Metrics

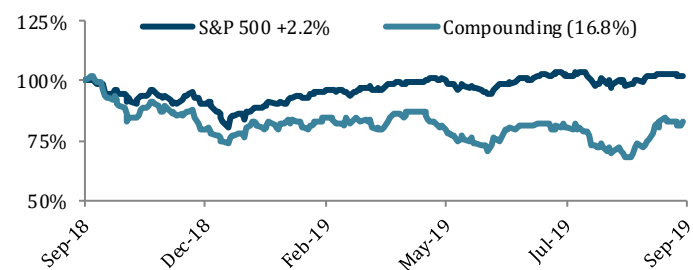
Company	Stock Price Change Since 9/30/2018	LTM Financials		LTM Margins		Valuation					
		Revenue	EBITDA	Gross Profit	EBITDA	OCF Margin ⁽¹⁾	Market Cap	Enterprise Value	EV/LTM Revenue	EV/LTM EBITDA	Net Debt/EBITDA
HEXPOL AB	(30.3%)	\$1,609	\$272	20.6%	16.9%	15.6%	\$2,646	\$2,792	1.74x	10.3x	1.2x
LyondellBasell Industries N.V.	(12.7%)	\$35,424	\$5,542	15.4%	15.6%	8.1%	\$29,994	\$40,951	1.16x	7.4x	2.4x
Clariant AG	(25.6%)	\$6,687	\$806	29.3%	12.1%	8.3%	\$6,420	\$8,358	1.25x	10.4x	2.2x
AirBoss of America Corp.	(34.4%)	\$319	\$27	14.4%	8.4%	3.4%	\$138	\$203	0.64x	7.6x	2.2x
PolyOne Corporation	(25.3%)	\$3,534	\$379	22.2%	10.7%	8.7%	\$2,510	\$3,876	1.10x	10.2x	3.4x
Mean	(25.7%)	\$9,514	\$1,405	20.4%	12.7%	8.8%	\$8,342	\$11,236	1.17x	9.2x	2.3x
Median	(25.6%)	\$3,534	\$379	20.6%	12.1%	8.3%	\$2,646	\$3,876	1.16x	10.2x	2.2x

(1) Operating cash flow (OCF) calculated as EBITDA less capital expenditures

Source: Capital IQ as of September 30, 2019

Indexed Stock Performance - Last 12 Months

(Indexed Price)

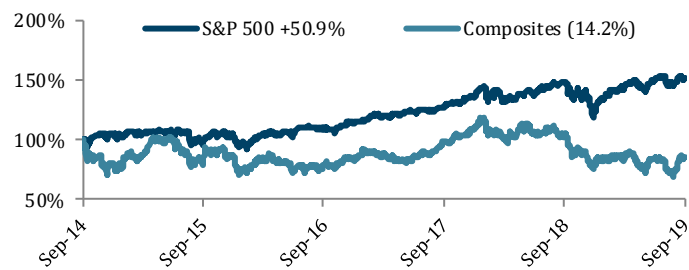


Source: Capital IQ as of September 30, 2019

Note: Market capitalization weighted index

Indexed Stock Performance - Last 5 Years

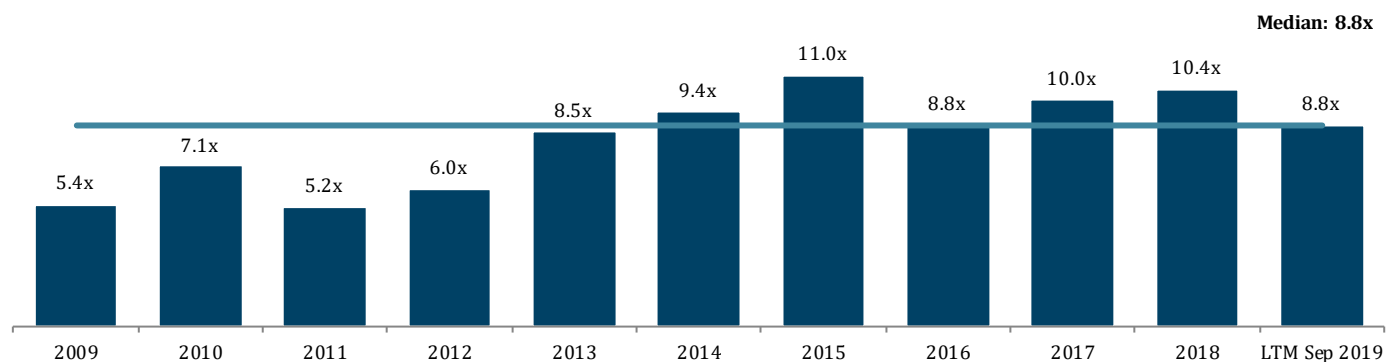
(Indexed Price)



Source: Capital IQ as of September 30, 2019

Note: Market capitalization weighted index

Valuation Multiples - LTM EBITDA



Source: Capital IQ as of September 30, 2019

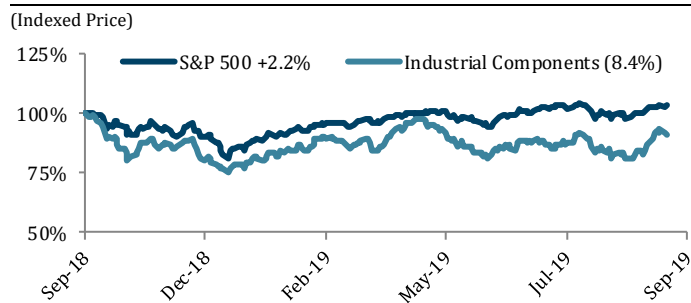
Industrial Components (Plastics & Rubber)

Select Comparable Public Company Metrics

Company	Stock Price Change Since 9/30/2018	LTM Financials		LTM Margins		Valuation					
		Revenue	EBITDA	Gross Profit	EBITDA	OCF Margin ⁽¹⁾	Market Cap	Enterprise Value	EV/LTM Revenue	EV/LTM EBITDA	Net Debt/EBITDA
Compagnie de Saint-Gobain S.A.	(9.0%)	\$47,143	\$5,568	25.4%	11.8%	7.7%	\$21,329	\$35,477	0.75x	6.4x	2.5x
Trelleborg AB	(31.1%)	\$3,779	\$611	31.8%	16.2%	11.3%	\$3,810	\$5,332	1.41x	8.7x	2.6x
EnPro Industries, Inc.	(5.9%)	\$1,502	\$212	31.3%	14.1%	11.4%	\$1,414	\$1,749	1.16x	8.2x	2.8x
Parker-Hannifin Corporation	(1.8%)	\$14,176	\$2,484	25.4%	17.5%	16.1%	\$23,208	\$26,951	1.90x	10.8x	2.1x
Lydall, Inc.	(42.2%)	\$854	\$85	19.7%	10.0%	5.5%	\$437	\$720	0.84x	8.4x	3.1x
Mean	(18.0%)	\$13,490	\$1,792	26.7%	13.9%	10.4%	\$10,039	\$14,046	1.21x	8.5x	2.6x
Median	(9.0%)	\$3,779	\$611	25.4%	14.1%	11.3%	\$3,810	\$5,332	1.16x	8.4x	2.6x

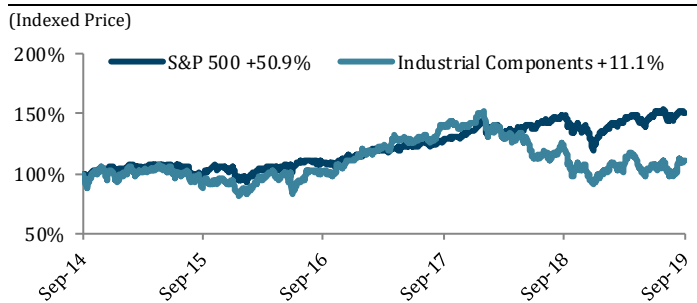
(1) Operating cash flow (OCF) calculated as EBITDA less capital expenditures
Source: Capital IQ as of September 30, 2019

Indexed Stock Performance - Last 12 Months



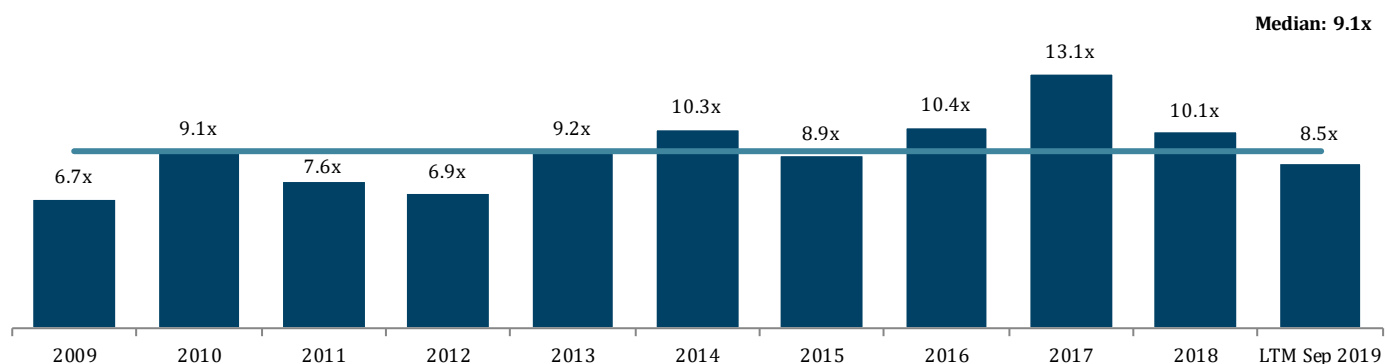
Source: Capital IQ as of September 30, 2019
Note: Market capitalization weighted index

Indexed Stock Performance - Last 5 Years



Source: Capital IQ as of September 30, 2019
Note: Market capitalization weighted index

Valuation Multiples - LTM EBITDA



Source: Capital IQ as of September 30, 2019

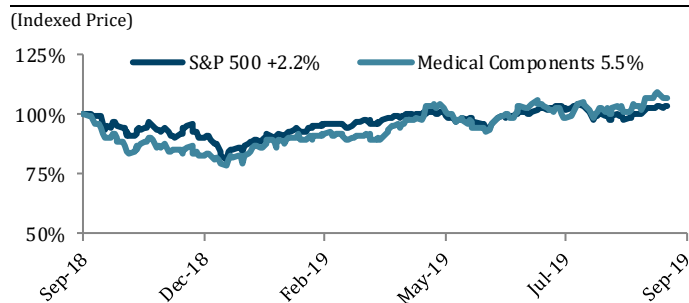
Medical Components (Plastics & Rubber)

Select Comparable Public Company Metrics

Company	Stock Price Change Since 9/30/2018	LTM Financials		LTM Margins		Valuation					
		Revenue	EBITDA	Gross Profit	EBITDA	OCF Margin ⁽¹⁾	Market Cap	Enterprise Value	EV/LTM Revenue	EV/LTM EBITDA	Net Debt/EBITDA
Nolato AB	(13.2%)	\$779	\$118	16.0%	15.1%	10.0%	\$1,419	\$1,434	1.84x	12.2x	0.1x
Nordson Corporation	5.3%	\$2,178	\$573	54.2%	26.3%	22.2%	\$8,409	\$9,614	4.41x	16.8x	2.1x
TE Connectivity Ltd.	6.0%	\$13,448	\$2,951	32.7%	21.9%	16.4%	\$31,289	\$34,815	2.59x	11.8x	1.0x
Dätwyler Holding Inc.	(15.0%)	\$1,386	\$229	25.0%	16.5%	8.9%	\$2,767	\$2,892	2.09x	12.6x	0.5x
West Pharmaceutical Services, Inc.	14.9%	\$1,792	\$386	32.7%	21.6%	14.9%	\$10,459	\$10,405	5.81x	26.9x	NM
Mean	(0.4%)	\$3,917	\$851	32.1%	20.3%	14.5%	\$10,869	\$11,832	3.35x	16.1x	0.9x
Median	5.3%	\$1,792	\$386	32.7%	21.6%	14.9%	\$8,409	\$9,614	2.59x	12.6x	0.8x

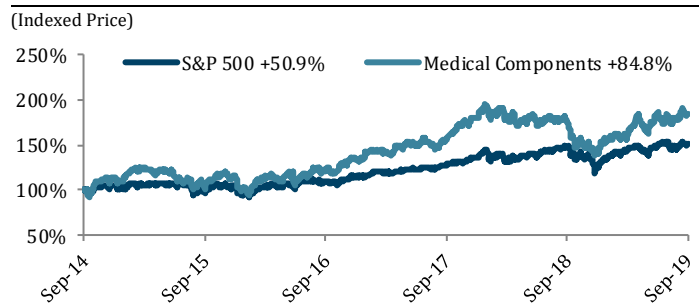
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Indexed Stock Performance - Last 12 Months



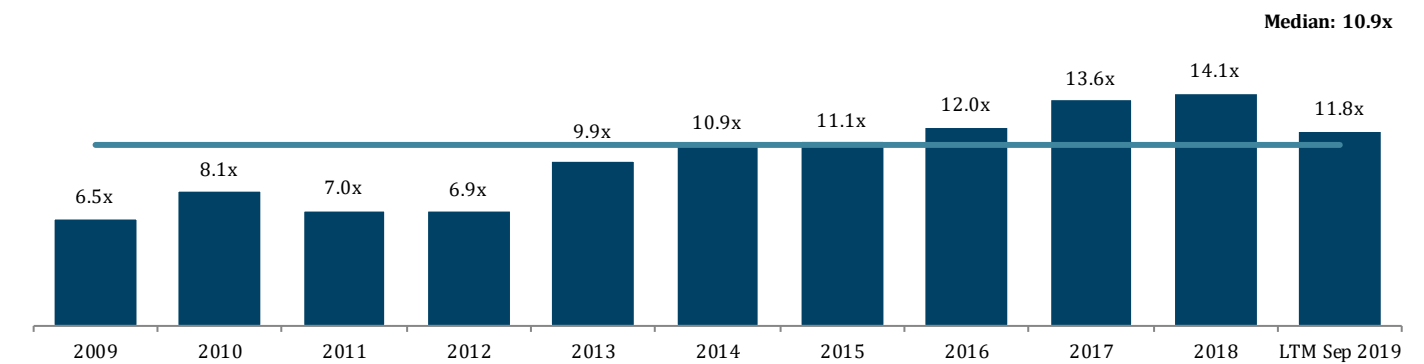
Source: Capital IQ as of September 30, 2019
Note: Market capitalization weighted index

Indexed Stock Performance - Last 5 Years



Source: Capital IQ as of September 30, 2019
Note: Market capitalization weighted index

Valuation Multiples - LTM EBITDA



Source: Capital IQ as of September 30, 2019

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