SOUTHWALL TECHNOLOGIES INC /DE/
Form 10-K
March 29, 2011

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2010

OR

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____to _____

Commission file number 0-15930

Southwall Technologies Inc.
(Exact name of Registrant as specified in its Charter)

Delaware	94-2551470
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification Number)

3788 Fabian Way
Palo Alto, California 94303
(Address of Principal Executive Offices Including Zip Code)

(650) 798-1200
(Registrant's Telephone Number, Including Area Code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
None	None

Securities registered pursuant to Section 12(g) of the Act:
Common Stock, $0.001 par value

(Title of Class)

_____

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15 (d) of the Act. Yes ¨ No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that registrant was required to submit and post such files. Yes x No ¨

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of “large accelerated filer”, “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check One).

Large accelerated filer ¨	Accelerated filer ¨
Non-accelerated filer ¨ (Do not check if a smaller reporting company)	Smaller reporting company x

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No x

The approximate aggregate market value of the Common Stock held by non-affiliates of the registrant on June 30, 2010 (based upon the closing sales price of the Common Stock on the Over-the-Counter Bulletin Market on such date) was $18,936,205. For purposes of this disclosure, Common Stock held by stockholders whose ownership exceeds five percent of the Common Stock outstanding as of June 30, 2010, and Common Stock held by officers and directors of the registrant has been excluded because such persons may be deemed to be "affiliates" as that term is defined in the rules and regulations promulgated under the Securities Act of 1933, as amended. This determination is not necessarily conclusive.

The number of shares of the registrant's Common Stock outstanding on March 21, 2011 was 5,811,868 (after giving effect to the one-for-five reverse stock split, which became effective on March 9, 2011).

DOCUMENTS INCORPORATED BY REFERENCE

Document Description	10-K Part III
Portions of the Registrant’s Proxy Statement for the Annual Meeting of Stockholders to be held May 11, 2011	

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2010 ANNUAL REPORT ON FORM 10-K
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Cautionary Statement For the Purpose of the “Safe Harbor” Provisions
of the Private Securities Litigation Reform Act of 1995

As used in this report, the terms "we," "us," "our," "Southwall" and the "Company" mean Southwall Technologies Inc. and its subsidiaries, unless the context indicates another meaning. This report contains forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995 that are subject to a number of risks and uncertainties. All statements other than statements of historical facts are forward-looking statements. These statements are identified by terminology such as "may," "will," "could," "should," "expects," "plans," "intends," "seeks," "anticipates," "believes," "estimates," "potential," or "continue," or the negative of such terms or other comparable terminology, or similar terminology, although not all forward-looking statements contain these identifying words. Forward-looking statements are only predictions and include, without limitation, statements relating to:

- our strategy, expected future operations and financial plans;
- our revenue expectations and potential financial results;
- the impact of current economic conditions on our business;
- future applications of thin film coating technologies;
- our development of new technologies and products;
- the properties and functionality and benefits of our products;
- our projected need for additional borrowings, and future liquidity and expectation to renew our line of credit;
- our ability to implement and maintain effective internal controls and procedures;
- the size of and the markets into which we sell or intend to sell our products;
- our intentions to pursue strategic alliances, acquisitions and business transactions;
- the possibility of patent and other intellectual property infringement;
- our opinions regarding energy consumption and the loss of energy through inefficient glass;
- our competition and our ability to compete in the markets we serve;
- our projected capital expenditures; and
- our research and development grant funding and expenditures.

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You should not place undue reliance on our forward-looking statements. Actual events or results may differ materially. In evaluating these statements, you should specifically consider various factors, including the risks outlined under "Risk Factors" below. These and other factors may cause our actual results to differ materially from any forward-looking statement. Although we believe the expectations reflected in our forward-looking statements are reasonable as of the date they are being made, we cannot guarantee our future results, levels of activity, performance or achievements. Moreover, we do not assume any responsibility for the future accuracy and completeness of these forward-looking statements.

PART I

(dollar amounts in thousands, except per share data)

ITEM 1. BUSINESS

Overview

Southwall is a provider of energy efficiency products. We develop and manufacture high performance films and glass products that improve energy efficiency in architectural and automotive glass applications. Founded in response to the oil embargo of 1973, Southwall has approximately 35 years of experience and commercial adoption of its products worldwide. Our products are designed to enable our green building and transportation customers to increase the amount of glass used in their designs while decreasing carbon emissions and reducing the amount of oil and electricity used in the heating and cooling of buildings and vehicles.

Developments in 2010

In 2010, our net revenues were $45,017, a 40% increase from net revenues of $32,103 in 2009, primarily due to increased demand in the window film and the automotive film markets, which resulted from higher sales of automobiles in 2010.

In 2010, we acquired a controlling interest in Southwall Insulating Glass, LLC (“Southwall Insulating Glass” or “SIG”), a joint venture between our wholly-owned subsidiary Southwall IG Holdings Inc. and Sound Solutions Windows & Doors, LLC (“Sound Solutions"). On April 8, 2008, Southwall IG Holdings, Inc., a wholly owned subsidiary of Southwall Technologies Inc., entered into a Joint Venture Agreement with Sound Solutions Window & Doors, LLC (“Sound Solutions”), creating SIG, which manufactures insulated glass units for the domestic market to further expand the market for our Heat Mirror product. As of December 31, 2009, Southwall IG Holdings, Inc. had a 50% investment in SIG. In 2009, Southwall IG Holdings, Inc. advanced a total of $300, in the form of a promissory note, to Sound Solutions. Pursuant to the terms of the promissory note dated May 11, 2009, the principal and accrued interest was due and payable to Southwall IG Holdings, Inc. by January 1, 2010. Under terms of the note, in the event of default, the outstanding principal was to be paid in the form of a credit to the Southwall IG Holdings, Inc. capital account.

Effective January 1, 2010, Sound Solutions had not paid the principal balance of $300 and was in default of the promissory note. The $300, for which Sound Solutions had received equity consideration in SIG, was credited to Southwall IG Holdings, Inc.’s capital account in SIG; thereby increasing our equity ownership to 66.3%.

On May 20, 2010 the joint venture agreement was amended, allowing Southwall IG Holdings, Inc. to make additional

cash contributions to the joint venture. In order to acquire an additional 8.7% to obtain 75% equity ownership, Southwall IG Holdings, Inc. relinquished $256 of the amount owed to it from Sound Solutions, and Sound Solutions maintained a 25% equity interest in SIG.

As a result of our acquisition of a controlling interest in SIG in May 2010, we now operate in two segments: film, which includes our development and manufacture of thin film coatings on flexible substrates, and glass, which includes the production and sale of insulated glass units through Southwall Insulating Glass. Since we did not acquire a controlling interest in SIG until May 2010, there is no information for the years ended December 31, 2009 and 2008 for comparison purposes. Prior to the year ended December 31, 2010, we operated only in one segment. Selected financial data for each segment can be found in Note 8, Segment Reporting, to the accompanying consolidated financial statements.

On August 23, 2010, our newly-formed, wholly-owned subsidiary, Crown International Acquisition Company, LLC, purchased substantially all of the assets of Crown Operations International, LTD (“Crown Operations”). Crown Operations is a Wisconsin-based processor of high performance, heat reflective interlayers that improve the energy efficiency of laminated glass in buildings, homes and cars. The assets acquired include, primarily, a 22,000 sq ft manufacturing facility, situated on four acres of land, and converting equipment located in Sun Prairie, Wisconsin. The purchase price was $3,302, consisting of $2,052 in cash and the $1,250 in term debt.

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We expect the acquisition of these assets to provide additional integration and improvement of our production processes enabling us to bring new, energy-saving interlayer products to the market. We also believe that Crown Operations' laminating and converting capabilities simplify material logistics and facilitate the adoption of high performance interlayers by our customers for volume production. We now can provide a complete interlayer solution from encapsulation through converting in furtherance of our goal of making it easier for manufacturers to integrate Southwall's XIR heat-reflective film into their architectural and automotive laminated glass products.

Recent Events

On March 9, 2011, we completed a 1-for-5 reverse stock split of our common stock, pursuant to previously obtained stockholder approval on May 12, 2010. The reverse stock split reduced the number of shares of our common stock issued and outstanding from approximately 28.8 million to approximately 5.8 million. In connection with the reverse stock split, we also reduced the number of our authorized shares of common stock from 50 million to 10 million to reflect the reverse stock split ratio. All share and per share amounts herein are presented on a post-reverse stock split basis, other than the consolidated balance sheet at December 31, 2009 and the consolidated statements of stockholders' equity for the years ended December 31, 2007 through December 31, 2009.

In 2010, we were awarded a three-year grant of $1,445 from the U.S. Department of Energy to develop advanced technologies aimed at making homes and buildings more energy efficient. We have used and will continue to use the funding to accelerate development of higher performance and lower cost Heat Mirror low-emissivity and solar-reflective films and multi-cavity, suspended-film insulating glass technology to enable the broad commercialization of "super-insulating" R-10 windows.

Additional Information

We maintain a website with the internet address of www.southwall.com. We are not including the information contained on our website as a part of, or incorporating it by reference into, this Annual Report on Form 10-K. We make available free of charge through our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and amendments, if any, to these reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the Securities and Exchange Commission ("SEC"). You may read and copy any material that we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an internet site at http://www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers, including Southwall, that file electronically with the SEC.

Industry Background

We service two large and diverse markets: Architectural (comprised of commercial and residential "green building") and Automotive. These markets, while seemingly quite different, have common requirements that are well suited for our high performance films and glass products. First, both markets are glass intensive, together accounting for 96 percent (50 metric tons or 6.3 billion square meters) of worldwide flat glass consumption. Second, we believe that both markets will increasingly require higher energy efficiency as rising oil prices, governmental regulation and growing consumer awareness of climate change drive our customers to seek higher performing energy-saving technologies. While renewable energy technologies hold great long-term promise, energy efficiency technologies such as ours are available today to address the immediate challenge. Lastly, glass often causes energy efficiency issues in buildings, homes and vehicles. Our proven energy efficiency products can represent immediate solutions for our customer's near-term design initiatives.

We believe that our thin film sputter coating technologies, proprietary process innovations and forward-verticalization strategy to provide value-add beyond coated film, provide differentiated product performance and favorable operating efficiencies, enabling us to compete in these growing markets with solutions that we believe can have an immediate and dramatic impact on saving energy and reducing carbon emissions.

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Markets/Products

Architectural Films and Glass

Glass use, as a percentage of the building envelope, continues to increase as architects look to harness the aesthetic appeal and natural daylighting benefits of glass. Much of this increase has been enabled by improvements in low-emissivity (or "low-e") coating technology, which was developed in response to increasing Energy Star® performance standards created to improve the energy efficiency of windows.

However, despite heavily insulated walls and ceilings and the increasing use of low-e coated glass, buildings account for a significant amount of the world's total energy consumption and carbon emissions. According to the Energy Information Administration's ("EIA") 2010 Annual Energy Outlook, buildings in the United States account for 38 percent of total carbon emissions, 72 percent of electricity consumption, and 54 percent of natural gas consumption. The U.S. Environmental Protection Agency ("EPA") also estimates that windows account for up to 25 percent of a typical house's heating load in heating-dominated climates and up to 50 percent of the cooling load in cooling-dominated climates. As a result, the construction industry has been under increasing pressure from governmental agencies and other groups to further improve the energy efficiency of buildings and homes in general, and of windows in particular.

Over the last two decades, the glass industry has largely relied on advances in low-e coating technology to improve energy performance. However, we believe that low-e coating technology has reached a practical performance limit and that the industry must adopt new and innovative technologies, such as our coated films and multi-cavity insulating glass units that can provide the next level of energy saving performance. Our technologies include the following:

- Suspended films. Suspended films, sold under the Heat Mirror® brand have a variety of low-e coatings that enable a broad range of thermal insulation, solar heat rejection and visible light transmission performance to meet the diverse design requirements of the commercial and residential glazing markets. One or more Heat Mirror coated films can be suspended in the airspace between the two pieces of glass of an insulating glass unit to create multiple insulating cavities, without increasing weight, to achieve center of glass insulating performance of up to R-20. We sell rolls of XIR film primarily to commercial glass fabricators who license our proprietary technology to produce high performance laminated glass primarily for their residential and commercial windows. We have developed proprietary technology to mount film inside an insulating glass unit which we license to the window fabricators. We have licenses with approximately 40 window fabricators in approximately 20 countries.

- Laminated films. Laminated films, sold under the XIR® brand, have a variety of infrared ("IR") reflective coatings that reduce the amount of the sun's heat entering a building to lower air conditioning usage, improve occupant comfort and reduce interior fading. XIR coated film is laminated between two pieces of uncoated glass to create monolithic laminated glass with superior aesthetics and solar heat gain rejection. We sell rolls of XIR film primarily to fabricators of commercial laminated glass, who laminate the film between glass, using our proprietary technology, for windows in large commercial buildings, such as airports, offices and museums. We sell to approximately 25 fabricators in approximately 15 countries for of this architectural film product.

- Applied films. Our Solis® metallic applied films and Ceramic applied films have a protective hard coat over a solar-control coating on one side and an adhesion layer on the other side that enables the film to be applied onto the surface of glass. There are aftermarket products that are applied to existing windows in buildings to reflect the sun's heat and lower air conditioning ("AC") use, improve occupant comfort and reduce interior fading. Our aftermarket applied films are sold pursuant to an exclusive worldwide license contained in our distribution agreement with

Solutia, Inc. and its subsidiaries under the V-KOOL®, Hüper Optik® and iQue® brands.

- Insulating glass. Southwall manufactures high performance insulating glass units directly through SIG. SIG licenses our proprietary Heat Mirror film-mounting technology to fabricate multi-cavity, suspended-film insulating glass units that it ships to residential and commercial window manufacturers. While we manufacture primarily Heat Mirror insulating glass units, we also fabricate dual-pane and triple-pane insulating glass to be a full-service supplier to our commercial and residential customers.

Automotive Films

Over the last 35 years, the total glass area used in vehicle models has increased by approximately 50 percent, and the average windshield size has increased by over 60 percent. With the introduction of large area rooflights in recent years, glass is being used increasingly as an exterior styling feature in addition to a means of providing the feeling of light and space within a vehicle. This larger glass area creates a growing challenge for automotive designers and engineers to maintain a comfortable cabin temperature by reducing the amount of IR heat from the sun entering the vehicle, without sacrificing visible light or fuel-efficiency through increased use of air conditioning.

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According to the U.S. Department of Energy (“DOE”), approximately 230 million vehicles in the U.S. consume seven billion gallons of fuel annually to power AC, which is equivalent to 5.5 percent of the total domestic light-duty vehicle petroleum consumption. Furthermore, AC use can increase fuel consumption of high-efficiency vehicles by as much as 35%. IR reflective glass has been offered since 1993 to improve passenger comfort, but more recently has been viewed by automotive original equipment manufacturers (“OEMs”) as an important technology to enable higher fuel efficiency and reduce emissions.

Southwall bonds an IR reflective coating onto clear polyethylene terephthalate (“PET”) film, which we sell under the XIR® film brand. This XIR coated film is available off-the-shelf to automotive glass manufacturers who laminate it with uncoated glass to create high-performance and cost-effective IR reflective glass for automotive OEM and aftermarket products. Such products enable automobile and truck manufacturers to use more glass, increase fuel efficiency by reducing the demand on a vehicle's AC system, as well as improve thermal comfort for passengers. XIR film is being used in over 26 million vehicles today to reduce AC power consumption by up to 20 percent and increases overall fuel efficiency by up to 5 percent while lowering emissions.

We offer two basic types of automotive film products:

- Laminated films. Laminated films, sold under the XIR® brand, have a variety of IR-reflective coatings that reduce the amount of the sun’s heat entering a vehicle. XIR films are laminated between two pieces of uncoated glass by OEMs who produce windshields, sidelites, backlites and rooflites for sale to manufacturers of new cars and trucks and for replacement glass in the aftermarket. Coating flat glass and then bending it to match complex automobile designs is the method currently used by most windshield glass producers. Our sputter coated, flexible films can be applied to windshields with different curvatures and can be incorporated into most in-line windshield production processes used by glass companies today. XIR film is being used in over 26 million vehicles today to reduce AC power consumption by up to 20 percent and increases overall fuel efficiency by up to 5 percent while lowering emissions.

- Applied films. Applied films have a protective hard coat over a solar-control coating on one side and an adhesion layer on the other side that enables the film to be applied to the surface of glass. These are aftermarket products that are applied to existing vehicle glass by authorized dealers to lower air conditioning usage, improve occupant comfort and reduce interior fading. Our aftermarket applied films are sold pursuant to an exclusive worldwide license contained in our distribution agreement with Solutia, Inc. and its subsidiaries under the V-KOOL® and Hüper Optik® brands.

The following table summarizes the markets into which we sell our products, the primary applications and key features of our products, and representative customers for each of our product categories:

MARKET	PRODUCTS	APPLICATIONS	KEY FEATURES	REPRESENTATIVE CUSTOMERS
Architectural Film	Heat Mirror® film	OEM multi-cavity insulating glass for new and retrofit residential and commercial windows and doors	· Improves thermal insulation to R20 (cool in summer, warm in winter) · Transmits high visible light · Blocks UV	· Serious Materials · Eco Insulating Glass · Intigral · Sofraver SA

	XIR® film	OEM laminated glass for commercial buildings (windows, curtain walls, etc)	· Reflects solar heat (cool in summer) · Transmits high visible light · Blocks UV	· Shenzhen Kaisheng Building Materials · PFG Building Glass Ltd. · Procesadora de Jalisco SA
	Solis and Ceramic applied window films	Aftermarket install on existing residential and commercial window glass	· Reflects solar heat (cool in summer) · Transmits high visible light · Blocks UV	· Solutia, Inc. · Hüper Optik
Automotive Film	Infrared Reflective XIR 70 and XIR 75 films	OEM laminated windshields, sidelites windows, backlites and sunroofs	· Reflects solar heat (cool in summer) · Transmits high visible light · Blocks UV	· Saint Gobain Sekurit · Pilkington Plc · Guardian Llodio S.L. · Shatterprufe
	Solis applied window film	Aftermarket install on windshields, sidelites windows, backlites	· Reflects solar heat (cool in summer) · Transmits high visible light · Blocks UV	· Solutia, Inc. · Hüper Optik
Glass	Heat Mirror® multi-cavity insulating glass units; dual-pane insulating glass	Multi-cavity insulating glass for new and retrofit residential and commercial windows and doors	· Improves thermal insulation to R20 (cool in summer, warm in winter) · Transmits high visible light · Blocks UV	· Sound Solutions · Gilkey Windows · Architectural Window Systems

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Technology

Nano-scale Thin film Coating

In the thin film sputtering process, a solid target and substrate are placed in a vacuum chamber. By adding a small amount of process gas, typically argon, to the chamber and negatively charging the target, the process gas is ionized and a plasma discharge is formed. The positively charged gas ions strike the solid target with enough force to eject atoms from its surface. The ejected target atoms condense on the substrate and a thin film coating is constructed atom by atom. By placing a magnet behind the target, the electrons in the ionized plasma are confined to a specific region on the target, enhancing the creation of ionized gas atoms and increasing the efficiency of the target atom ejection process. By using different targets and process gas, we can create a multi-layered coating, or stack. The optical properties of the thin film stack are manipulated by adjusting the thickness and number of layers.

The advantages of our sputtering process include our ability to monitor the optical properties of the thin films in-situ and the high degree of uniformity control that we can achieve.

Applied Film Converting

In order to incorporate the coated spectrally selective film into an applied window film, additional processing is required. This processing involves a film converting process that applies a scratch resistant hardcoat, two adhesive layers and a second thin layer of PET. This material is then slit to proper widths and wound into individual customer ready rolls. We currently outsource this process to a roll converter.

Encapsulation

The encapsulation process combines one or two sheets of polyvinyl butyral (“PVB”) with coated spectrally selective film to create a bi- or tri-layer laminate. This laminate structure is referred to as a “Prelam”. This is done through a proprietary web processing converting process. A bi-layer assembly (supplied almost exclusively to auto glass producers) consists of one layer each of PVB and film. A tri-layer assembly consists of one film layer between two PVB layers. Prelam material is conveniently wound in roll form and can be cut to virtually any width or length.

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Film Based IGU Manufacturing

Insulating glass units ("IGUs") are manufactured on a made to order basis on factory production lines. On the assembly line, spacers of specific thicknesses are cut and assembled into the required overall width and height dimensions and filled with desiccant. On a parallel line, glass panes are cut to size and washed to be optically clear. An adhesive sealant (polyisobutylene or "PIB" for short) is applied to the face of the spacer on each side and the panes pressed against the spacer. If the unit is gas filled with gas for higher insulating performance, two holes are drilled into the spacer of the assembled unit and hose line are attached to draw the air out of the space and replace it with the desired gas, typically argon or krypton. The lines are then removed and holes sealed to contain the gas. The more modern technique is to use an inline gas fill chamber, which eliminates the need to drill holes in the spacer. The units are then sealed on the edge side using typically polyurethane or silicone sealant or similar material to prevent humid outside air from entering the unit. The desiccant will remove traces of humidity from the air space so that no water appears on the inside faces of the glass panes facing the air space during cold weather.

The Heat Mirror IGU manufacturing process utilizes standard and custom glass fabrication equipment to assemble an IGU with Heat Mirror film suspended in the airspace, or cavity, between the glass to create a multi-cavity glazing unit. In this proprietary process, the Heat Mirror film is assembled onto special frames, or spacers, utilizing PIB that functions as an adhesive during the assembly process and as an environmental sealant once the IGU is completed. These frame-film subassemblies are placed between two sheets of glass, optionally filled with a low thermal conductivity gas, such as argon or krypton, and secured permanently with polyurethane or silicone-based secondary sealant. The secondary sealant, specially qualified by Southwall for use in the production of Heat Mirror IGUs, is applied to enhance environmental stability and support the Heat Mirror film. During the manufacturing process, the film is tensioned in the IGU so that it is not visible.

One key advantage of Heat Mirror technology is that one, two or three films can be suspended within an IGU to create up to four independent, insulating cavities, while maintaining the same weight as a dual-pane IGU. This weight advantage enables window manufacturers to reuse existing dual-pane hardware and also makes it easier to install large units. Secondly, the Heat Mirror film coating incorporates a low-emissivity functionality that reflects the infrared radiant room heat back toward the room, thus increasing the thermal insulation benefit of the glazing, while maximizing transmission of useful, visible light. The result is a lightweight, multi-cavity, high-performance IGU that is capable of outperforming dual-pane IGU's and insulates like a transparent wall.

Thin film coating alternatives

There are three primary methods for commercially producing thin-film coatings on glass or flexible substrates:

- Wet coating. The wet coating process generally involves depositing a thin layer of material onto glass or a flexible substrate (or film) by a number of different methods. Once a uniform thin layer of liquid is applied, the layer is cured either by temperature or by ultra-violet radiation. This process is typically less expensive than sputter coating, but generally yields coatings with lower quality optical and mechanical characteristics.

- Direct coating onto glass substrates. Direct coating onto glass can be accomplished by sputtering and pyrolytic means. Direct-to-glass sputtering is a mature, well-known process for applying thin film coatings to glass. This technology is commonly used to manufacture low-e products that conserve energy in buildings. Pyrolytic coatings are formed directly on the glass as it is produced on a float line. The pyrolytic process uses the heat of the molten glass to make a single layer, metal oxide coating from a solution sprayed onto the glass. Because this technique produces only single layer coatings, the performance is limited.

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Sputter coating onto flexible film substrates. The sputter coating process, which is the process primarily employed by Southwall, deposits a nano-scale layer of material, generally metals and metal oxides, onto the surface of a flexible substrate, usually polyester. The substrate can then either be laminated in, applied to, or suspended between sheets of glass. The substrate can be applied to both flat glass and curved glass, such as is used in automotive applications.

Insulating glass alternatives

There are three primary methods for producing IGUs:

- Dual-pane IGU. The manufacture of dual-pane IGUs consists of cutting two glass panes to size, separating them with a low-conducting spacer (which is filled with desiccant and coated on each face with an adhesive sealant) to create an air space, and then pressing the panes of glass against the spacer to create an airtight seal. The units may use low-e coated glass and/or be filled with inert gas such as argon or krypton to improve thermal performance. Dual-pane IGUs are typically produced on an automated vertical manufacturing line, although smaller manufacturers may produce IGUs using horizontal equipment using manual processing steps. The maximum center-of-glass insulating performance, or R-value, of a dual-pane IGU is approximately R5.

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- Triple-pane IGU. The manufacture of triple-pane IGUs is similar to that of dual-pane IGUs with the primary difference being the addition of a second spacer and third pane of glass to create two separate insulating cavities within the unit. The maximum center-of-glass insulating performance, or R-value, of a triple-pane IGU is approximately R10.

- Multi-cavity suspended film IGU. The manufacture of multi-cavity suspended-film IGUs is similar to that of triple-pane IGUs with a few significant differences. Because film is lightweight, up to three films can be suspended within an IGU, creating up to four separate insulating cavities within the unit, which enables much higher insulating performance (up to R20) than can be achieved with triple-pane construction. In addition, the spacer and secondary sealant are used as structural elements to support the suspended film after it has been tensioned.

Sales and Marketing

Distribution channels

We sell rolls of architectural XIR film through a direct sales force primarily to commercial glass fabricators who license Southwall's proprietary technology to produce high performance laminated glass primarily for windows in large commercial buildings, such as airports, offices and museums. We sell to approximately 25 fabricators in approximately 15 countries. Our field services organization assists customers in the manufacture of XIR laminated glass.

We sell rolls of automotive XIR film through a direct sales force primarily to OEM glass manufacturers in North America and Europe. Our field services organization assists customers in the manufacture of XIR laminated glass.

We sell rolls of our Heat Mirror suspended films through a direct sales force to approximately 40 insulated glass and window fabricators and distributors worldwide, including SIG. Our proprietary mounting technology is licensed to our customers, who use special equipment for the manufacture of Heat Mirror-equipped windows. Our field services organization assists customers in the manufacture of Heat Mirror IGUs for their window products.

We sell rolls of applied window film product to Solutia, who markets the product under three brands: V-KOOL, Hüper Optik and IQue for the aftermarket automotive and architectural markets through a worldwide distribution network of companies owned by or affiliated with Solutia.

We sell multi-cavity Heat Mirror IGUs and standard dual-pane IGUs to commercial and residential window fabricators in North America through SIG.

Our automotive film net revenues were $19,898, $16,040 and $19,298 for the years ended December 31, 2010, 2009 and 2008, respectively. Our window film net revenues were $17,178, $9,346 and $15,691 for the years ended December 31, 2010, 2009 and 2008, respectively. Our architectural net revenues were $5,509, $6,353 and $6,358 for the years ended December 31, 2010, 2009 and 2008, respectively.

International Revenues

International revenues amounted to approximately 84%, 82% and 81% of our net revenues during 2010, 2009 and 2008, respectively. The principal foreign markets for our products were Germany and France, accounting for $19,341, $14,471 and $16,199, respectively, in net revenues in 2010, 2009 and 2008 and the Pacific Rim and Japan, accounting for $16,385, $8,738 and $13,638, respectively, in net revenues in 2010, 2009 and 2008, respectively. For additional geographic financial information see Note 8, Segment Reporting, to the accompanying consolidated financial statements.

Research and Development

Our research and development activities are focused on the development of new proprietary products, thin film materials science, coating processes and manufacturing automation technologies. Our research and development expenditures totaled $3,773, $2,874 and $2,996 or approximately 8%, 9% and 7% of net revenues in 2010, 2009 and 2008, respectively.

Historically, our research and development efforts have been driven by customer requests for the development of new applications for thin film coated substrates. In 2008, we introduced a new family of Heat Mirror film, optimized to improve the energy efficiency of structural glazing used in the commercial projects. In 2009 and 2010, we focused our engineering efforts on improving the manufacturability of Heat Mirror IGUs and developing higher performing automotive XIR and Heat Mirror film products. In addition to our primary automotive and architectural markets, we continued our development efforts related to other markets that benefit from our technology, such as transparent conductive oxides for the touch panel market. We cannot guarantee that we will be successful in developing or marketing these applications or that our films will continue to meet the demanding requirements and the changing technology of the markets we serve.

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Intellectual Property

Protection of our intellectual property is important to maintain our competitive position. We rely on our knowledge, as well as a combination of patent, trademark, and trade secret protection to establish and protect our intellectual property. We have 22 issued patents in the United States, including one new patent issued in 2010 pertaining to new thin film optical structures for improved XIR film performance, and have 48 issued patents outside of the United States. Additionally, we have approximately 14 patent applications pending in the United States, and approximately 34 patent applications pending outside the United States. Our patents and patent applications cover materials, processes, products and production equipment. Our issued patents have expiration dates ranging from 2011 to 2020. We also seek to protect our know-how and trade secrets through a number of means, including limiting access to our proprietary information to those persons who need to know the information to perform their tasks and requiring those persons with access to our proprietary information to execute nondisclosure agreements with us. We consider our proprietary technology, as well as our patent protection, to be an important competitive factor in our business.

Customers

We have created film and glass products which fill the needs of certain customers who require a superior quality product. Such customers represent a small portion of the overall automotive and architectural glass market. The majority of the applied film that we sell to Solutia under our distribution agreement is installed on automotive glass in vehicles. Only a small portion is installed on architectural glass in homes and buildings.

A small number of customers have accounted for a substantial portion of our film revenues. Our four largest customers accounted for approximately 76% of our net revenues in 2010 and our seven largest customers accounted for 69% and 74% of our net revenues in 2009 and 2008, respectively. During 2010, Solutia, Pilkington PLC, Saint Gobain Sekurit and Guardian accounted for 38%, 16%, 12% and 9%, respectively, of our net revenues. During 2009, Solutia, Pilkington PLC, Saint Gobain Sekurit and Guardian accounted for 24%, 20%, 11% and 10%, respectively, of our net revenues. During 2008, Solutia, Pilkington PLC and Saint Gobain Sekurit accounted for 33%, 16% and 13%, respectively, of our net revenues. Because of our fixed costs, the loss of, or substantial reduction in orders from, one or more of these customers would have a material adverse effect on our net revenues, profitability and cash flow.

The timing and amount of sales to many of our customers depends on sales levels and shipping schedules for the OEM products into which our products are incorporated. We have no control over the shipping dates or volume of products shipped by our OEM customers, and we cannot be certain that they will continue to ship products that incorporate our products at current levels or at all. In addition, we rely on our OEM customers to timely inform us of opportunities to develop new products that serve end-user demands.

Customers for Laminated Films (Automotive & Architectural)

Our automotive laminated film customers are suppliers in the automotive OEM and aftermarket glass industry, including Saint-Gobain Sekurit, Pilkington PLC, Guardian and Shatterprufe Pty. Our customers sell glass to OEM automobile manufacturers, including Audi, BMW, Daimler, Ford, PSA Group (which includes Peugeot and Citroen), Renault, Volvo and Volkswagen.

Our architectural laminated film customers are suppliers to the architectural glass industry, including: Sofraver S.A., Shenzhen Kaisheng Energy Saving Technology Co., PFG Building Glass, Goldway Enterprises and about 22 other companies worldwide. These customers manufacture and supply primarily commercial laminated glass that incorporates our films.

Customers for Applied Films (Automotive and Architectural)

Our aftermarket applied film in the automotive and architectural glass markets is sold pursuant to an exclusive worldwide license contained in our distribution agreement with Solutia. Under our agreement, Solutia agreed to purchase a set amount of our products during the term of the agreement subject to volume and quality standards. Our failure to produce required amounts of product under the distribution agreement will result in late delivery penalties payable to Solutia.

Under our agreement with Solutia, Solutia agreed to a 2004 minimum purchase commitment of $9,000 of product. For each year after 2004 through the term of the contract, Solutia contracted to purchase an amount of product equal to 110% of the amount of product it was required to purchase in the prior year. As of December 31, 2010, Southwall remains in compliance with the delivery terms set forth in the distribution agreement.

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Customers for Suspended Films (Architectural)

Our customers are suppliers to the architectural glass industry, including: SIG, Sofraver S.A., Serious Materials, ECO Insulating Glass, Intigral, and about 35 other companies worldwide. These customers manufacture and supply suspended-film IGUs that incorporate our films.

Customers for Glass (Architectural)

Our customers are commercial and residential window fabricators, including: Sound Solutions, Gilkey Windows, Architectural Window Systems and about a dozen other companies in North America. These customers manufacture and supply high performance windows that incorporate our Heat Mirror suspended film IGUs and standard dual-pane IGUs.

Integration

We are continuing to review and consider strategic alliances that may result in vertical integration of our products in the production and distribution channels. However, there can be no assurances with respect to future revenue or income pertaining to these alliances, if any at all.

Manufacturing

The table below provides information about our current production machines and the class of products that each was tooled to produce in 2010.

Location	Primary Markets For Current Production	Year Commercial Production Initiated	Estimated Annual Capacity (Millions of Sq. Ft.)(1)
Palo Alto, California	Research and development	1982	8.0
Dresden, Germany	Automotive and architectural film	2000	48.0
Sun Prairie, Wisconsin	Encapsulation of automotive and architectural film	2010	0.6
Chicago, Illinois	Architectural glass	2008	3.0

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(1) Estimated annual capacity represents our estimated yields based on our historical experience and anticipated product mix. The amount of product for which we receive orders and which we actually produce in any year may be materially less than these estimates.

Although our production systems are built by outside vendors, we work closely with our vendors on the design for our production machines. Our experience with designing production systems is critical for the proper construction of these machines. Once a new machine is installed and accepted by us, our engineers are responsible for transitioning the system into commercial production to help ensure stable manufacturing yields. Currently, we have sufficient production capacity to meet our customers' requirements.

Facilities

We own a production facility in Großröhrsdorf, Germany, near the city of Dresden. This facility is ISO 9001/2000/14001 certified. The facility has three production machines and manufactured 100% of our film products during 2010.

Our film encapsulation and converting facility is located in one location, which is company-owned, in Sun Prairie, Wisconsin. This facility consists of approximately 22,000 square feet, has three production machines and supported 100% of our encapsulation requirements in 2010. This facility has been awarded an ISO 9001:2008 certification.

Our glass manufacturing facility is located in Chicago, Illinois. This leased facility consists of 75,640 square feet and manufactured 100% of our glass products in 2010.

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Environmental Matters

We use potentially hazardous materials in our research and manufacturing operations and have air and water emissions that require controls. As a result, we are subject to stringent federal, state and local regulations governing emissions and the storage, use, treatment and disposal of hazardous materials and waste. We contract with outside vendors to collect and dispose of waste from our facilities in compliance with applicable environmental laws. In addition, we have implemented procedures that we believe enable us to deal properly with the gasses emitted in our production process, and we have a program to monitor our compliance with environmental laws and regulations. Although we believe we are currently in material compliance with such laws and regulations, current or future laws and regulations may require us to make substantial expenditures in connection with our air and water emissions and with our storage use, treatment and disposal of hazardous materials and waste. Further, our failure to comply with current or future laws and regulations could subject us to substantial penalties, fines, costs and expenses.

Suppliers and Subcontractors

We manufacture our products using materials procured from third-party suppliers. We obtain certain of these materials from limited sources. For example, the substrate we use in the manufacture of several of our products is currently available from one main qualified source. The loss of our current source of supply would adversely affect our ability to meet our scheduled product deliveries to customers. Alternative sources of supply are being pursued; however, it takes approximately 18 to 24 months for us to qualify a new supplier and we may not be able to successfully develop such sources. In addition, increases in prices charged by our suppliers could force us to raise prices on our products or lower our margins, which could have a material adverse effect on our operating results.

We rely on third-party subcontractors to add properties, primarily adhesives, to some of our products. There are only a limited number of qualified subcontractors that can provide some of the services we require. A significant increase in the price charged by one or more of our subcontractors could force us to raise prices on our products or lower our margins, which could have a material adverse effect on our operating results. We believe the acquisition of Crown Operations mitigates the risk of outsourcing the encapsulation of our laminated film products.

Furthermore, our production machines are large, complex and difficult to design and produce. It can take up to a year from the time we order a machine until it is delivered. Following delivery, it can take us, with the assistance of the manufacturer, up to six additional months to test and prepare the machine for commercial production. There are a limited number of companies that are capable of manufacturing these machines to our specifications. Though we currently have sufficient production capacity with our existing machines for the foreseeable future, if capacity requirements were to change significantly, our inability to have new production machines manufactured and prepared for commercial production in a timely manner would have a material adverse effect on our ability to grow the business.

Backlog

Our backlog primarily consists of purchase orders for products to be delivered within 90 days. As of February 28, 2011 and February 28, 2010, we had a backlog of orders for shipment over the following 12 months of approximately $10,669 and $9,143, respectively. We expect to ship the entire backlog listed as of February 28, 2011 during 2011. These are firm orders and are not subject to cancellation.

Competition

The thin film coatings and glass industry and the markets in which our customers compete experience rapid technological change. Adoption by our competitors of new equipment or process technologies or the development by

our competitors or customers of new products could adversely affect us. We have a number of present and potential competitors, including some of our customers who could develop products and processes that replace ours, many of which have greater financial resources and greater selling, marketing and technical resources than we possess. In addition, many of our competitors have well established relationships with our current and potential customers and have knowledge of our industry.

Automotive film market. Large, worldwide glass laminators typically have divisions selling products to the commercial flat glass industry and provide solar control products in the automotive OEM market. We face technological competition from companies (including some of our customers) such as PPG Industries, Pilkington PLC, Saint Gobain Sekurit, Asahi, Guardian and Glaverbel that have direct-to-glass sputtering capability. We may also be subject to future competition from companies that are able to infuse glass with solar control properties. We estimate that in 2010 our coated substrates were used in less than 1% of the total worldwide automotive OEM glass produced.

Architectural film market. Products that provide solar control and energy conservation have been available to this market for approximately 25 years. Since the introduction of our Heat Mirror film products in 1979, large glass producers (including some of our customers), such as Guardian, PPG Industries, Apogee Enterprises, Pilkington PLC, Saint Gobain Sekurit and Asahi, have produced their own direct-to-glass sputtered products that provide solar control and energy conservation similar to our Heat Mirror products. We estimate that in 2010 our coated substrates were used in less than 1% of the glass used worldwide in residential and commercial buildings.

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Architectural glass market. Large insulating glass manufacturers (including some of our customers), such as Viracon, Old Castle Glass, Cardinal IG and Intigral, provide competitive triple-pane, dual-pane and suspended film IGUs that are widely accepted in the market. We estimate that in 2010 our IGUs represented less than 1% of the total IGUs used worldwide in residential and commercial buildings.

Applied window film market. In the applied window film segment of the market, covering both automotive and architectural markets, companies (including some of our customers) such as 3M, Bekeart, CP Films (a division of Solutia) and Lintec Inc. produce competitive solar control products that are widely accepted in the market. We estimate that in 2010 our applied window films were used in less than 1% of the total worldwide applied film market.

Basis of competition

We believe we compete principally on the basis of

- Proprietary thin film sputtering process knowledge and proprietary control systems that consistently deliver very high quality, complex, nano-scale optical and electrical thin films on plastic webs;
- Our extensive thin film materials expertise and optical design capabilities, which allow us to bring new products to the market very quickly;
- Our long-term customer relationships and applications knowledge which enables us to qualify our products in the markets in which we participate;
- The high quality of our products;
- Our ability to easily alter the format of our products, providing our customers with inventory versatility and higher production yields; and
- Low-cost manufacturing of multi-cavity Heat Mirror IGUs using proprietary, automated production processes being developed, as a result of our 30 years experience in suspended film IGU technology.

Quality Claims

We accept sales returns for quality claims on our products. We believe our returns plan is competitive for the markets in which our products are sold. The nature and extent of these quality claims depends on the product, the market, and in some cases the customer being served. We carry liability insurance; however, our insurance does not cover quality claims.

Employees

As of December 31, 2010, we had 145 employees, of whom 19 were engaged in engineering, 85 in manufacturing, 13 in sales and marketing, 2 in purchasing and 26 in general management, finance and administration. We are highly dependent upon the continuing services of certain technical and management personnel. None of our employees are represented by labor unions. We consider our employee relations to be good.

ITEM 1A. RISK FACTORS

(amounts in thousands, except per share data)

Financial Risks

Uncertain global economic conditions may continue to have a negative effect on our business and operations.

The uncertain global economic conditions and financial markets we have experienced over the past few years has caused, among other things, a general tightening in the credit markets, lower levels of liquidity, increases in the rates of default and bankruptcy, lower consumer and business spending, and lower consumer net worth. Many of our customers, distributors and suppliers have been or may be severely affected by the current economic conditions. Current or potential customers and suppliers and subcontractors may cease doing business, may be unable to fund purchases or determine to reduce purchases, all of which could lead to reduced demand for our products, reduced gross margins, and increased customer payment delays or defaults. Further, suppliers and subcontractors may not be able to supply us with needed raw materials on a timely basis, may increase prices or go out of business, which could result in our inability to meet consumer demand or affect our gross margins. Our suppliers and subcontractors may also impose more stringent payment terms on us. The timing and nature of the economic recovery and improvement in the credit and financial markets, continues to be slow, and there can be no assurance that market conditions will continue to improve in the near future or that our results will not continue to be materially and adversely affected. Such conditions make it very difficult to forecast operating results, make business decisions and identify and address material business risks.

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The continued low level of production of automobiles and commercial and residential real estate construction could continue to harm our business.

As a manufacturer of energy saving films and glass products for the domestic and international automotive and architectural markets, we are dependent upon automobile sales, and new commercial and residential real estate construction. We sell a substantial portion of our products to a relatively small number of OEMs, and the timing and amount of our sales to these customers ultimately depend on sales levels and shipping schedules for the OEM products, such as automobiles and commercial and residential real estate construction, into which our products are incorporated. The failure of the automobile and commercial and residential real estate markets to improve could adversely impact our sales volume, and could cause certain of our customers and suppliers to experience liquidity problems, potentially resulting in our write-off of amounts due from these customers and cost impacts of changing suppliers. Additionally, a change in our suppliers or other delays or problems suffered by our suppliers could have an adverse impact on our ability to manufacture our products on a timely basis, if at all. If our major customers or suppliers significantly reduce their transactions with us, our business will be harmed.

Our ability to access capital could be adversely affected due to the continued instability in the capital markets.

Our ability to access the capital markets may be restricted at a time when we would like, or need, to access those markets, which could have an impact on our flexibility to react to changing economic and business conditions. The resulting lack of available credit, lack of confidence in the financial sector, volatility in the financial markets and reduced business activity could materially and adversely affect our business, financial condition, results of operations and our ability to obtain and manage our liquidity. In addition, the cost of debt financing and the proceeds of equity financing may be materially adversely impacted by these market conditions.

Covenants or defaults under our credit and other loan agreements may prevent us from borrowing or force us to curtail our operations.

As of December 31, 2010, we had total outstanding obligations under our loan and capital lease agreements of $4,535. Our current credit facilities contain financial covenants that require us to meet certain financial performance targets and operating covenants that limit our discretion with respect to business matters. Among other things, these operating covenants restrict our ability to borrow additional money, create liens or other encumbrances, and make certain payments including dividends and capital expenditures. The restrictions imposed by these credit facilities or the failure of lenders to advance funds under these facilities could force us to curtail our operations or have a material adverse effect on our liquidity. Our inability to make timely payments of interest or principal under these facilities or our failure to comply with financial performance or operating covenants will constitute a default under these facilities and will entitle the lenders to accelerate the maturity of the outstanding indebtedness. Any such default will likely prevent us from borrowing money under existing credit facilities, securing additional borrowings or functioning as a going concern. As of December 31, 2010, we were in compliance with all of our debt covenants.

Our ability to borrow is limited by the customized nature of our equipment and some of our foreign accounts receivable.

Our equipment is custom designed for a special purpose. In addition, a large portion of our accounts receivable are from foreign sales, which are often more difficult to collect than domestic accounts receivable. As a result of the nature of our customized equipment and foreign accounts receivable, lenders will generally allow us to borrow less against these asset items as collateral than they would for other types of equipment or domestic accounts receivable, or require us to provide additional credit enhancements. As a result, we may not be able to borrow a sufficient amount to fund our operations or, if such funding is available, it may be at an unacceptable cost.

If we default under our secured credit facilities and financing arrangements, the lenders could foreclose on the assets we have pledged to them requiring us to significantly curtail or even cease our operations.

In connection with our current borrowing facilities and financing arrangements, we have granted security interests in and liens on selected assets to secure the loans. Our obligations under our secured credit facilities contain cross-default and cross-acceleration provisions and other provisions that allow the lenders to declare the loans immediately due if there is a material adverse change in our business. If we default under the senior credit facilities or under our other financing arrangements, the lenders could declare all of the funds borrowed thereunder, together with all accrued interest, immediately due and payable. If we are unable to repay such indebtedness, the lenders could foreclose on the pledged assets. If the lenders foreclose on our assets, we would be forced to significantly curtail or even cease our operations.

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Our quarterly revenues and operating results are volatile and difficult to predict.

Our quarterly revenues and operating results may vary depending on a number of factors, including

- fluctuating customer demand, which is influenced by a number of factors, including market acceptance of our products and the products of our customers by end-users, changes in product mix, and the timing, cancellation or delay of customer orders and shipments;
- the timing of shipments of our products by us and by independent subcontractors to our customers;
- manufacturing and operational difficulties that may arise due to, among other things, quality control, capacity utilization of our production machines, unscheduled equipment maintenance and repair, and the hiring and training of additional staff;
- our ability to enhance our products, improve our processes and introduce new products on a timely basis;
- competition, including the introduction or announcement of new products by competitors, the adoption of competitive technologies by our customers, the addition of new production capacity by competitors and competitive pressures on prices of our products and those of our customers; and
- product returns and customer allowances stemming from product quality defects and the satisfaction of product warranty claims.

We expect to be subject to increased foreign currency risk in our international operations.

In 2010, 2009 and 2008, approximately 43%, 48% and 48% of our net revenues, respectively, were denominated in Euros, including sales to one of our largest customers, Saint-Gobain Sekurit, a global automotive glass manufacturer. Also, certain purchases from foreign suppliers are denominated in foreign currencies. A strengthening in the dollar relative to the Euro would increase the prices of our products as stated in those currencies and could hurt our sales in those countries. Significant fluctuations in the exchange rates between the U.S. dollar and foreign currencies could cause us to lower our prices and thus reduce our profitability and cash flows. These fluctuations could also cause prospective customers to cancel or delay orders because of the increased relative cost of our products. Conversely, the weakening in the dollar relative to the Euro would increase the cost of our purchases of supplies from foreign suppliers.

Operational Risks

We depend on a small number of customers for nearly all of our revenues, and the loss of a large customer could materially and adversely affect our revenues and operating results.

Our four largest customers accounted for approximately 76% of our net revenues in 2010 and our seven largest customers accounted for 69% and 74% of our net revenues in 2009 and 2008, respectively. We expect to continue to derive a significant portion of our net revenues from this relatively small number of customers. Accordingly, the loss of a customer could have an adverse effect on our business. The deferral or loss of anticipated orders from a large customer or from a number of small customers will materially reduce our revenues and operating results.

Some of our largest automotive film customers have the resources to develop products competitive with ours; if they do so, our revenues and operating results would be materially and adversely affected.

Some of our largest automotive film customers have used a technology—direct-to-glass sputtering—as an alternative to our window films. The continued or expanded use of this technology by our automotive glass customers would limit their need for our products, reduce our sales to these customers and would have a material adverse effect on our revenues, results of operations and financial position. Many of our customers also have the financial and technical resources to develop products competitive with ours. If any of our customers develop any such competitive products, the demand for our products would be adversely affected and results of operations and our financial position would be materially and adversely affected.

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We must continue to develop new products and processes or enhance existing products on a timely basis to compete successfully in a rapidly changing marketplace.

Our future success depends upon our ability to introduce new products, and processes and improve existing products and processes to keep pace with technological and market developments, and to address the increasingly sophisticated and demanding needs of our customers, especially in the automotive and architectural markets. Technological changes, process improvements or operating improvements that could adversely affect us include:

- changes in the way coatings are applied to alternative substrates such as tri-acetate cellulose, or TAC;
- the development of new technologies that improve the manufacturing efficiency of our competitors;
- the development of new materials that improve the performance of products that could compete with our products; and
- improvements in the efficiency and resulting product quality of alternatives to the sputtering technology we use to produce our products, such as plasma enhanced chemical vapor deposition, or PECVD.

Our research and development efforts may not be successful in developing products in the time, or with the characteristics, necessary to meet customer needs. If we do not adapt to technological changes or implement process or operating improvements, our competitive position, operations and prospects would be materially adversely affected.

Our ability to successfully identify suitable target companies or technologies, negotiate acceptable acquisitions and integrate acquired companies or technologies may affect our future growth.

A part of our continuing business strategy is to consider acquiring companies, products, and technologies that complement our current products, enhance our market coverage, technical capabilities or production capacity, or offer other growth opportunities. Our ability to successfully complete acquisitions requires that we identify suitable target companies, agree on acceptable terms, and obtain acquisition financing on acceptable terms. In connection with these acquisitions, we could incur debt, amortization expenses relating to identified intangibles, impairment charges relating to goodwill or merger related charges. We might also issue shares of capital stock as partial or full payment of the purchase price for a target company or raise additional equity capital to finance such purchases. Such an issuance would dilute our current shareholders' interest as a percentage of ownership or in net book value per share. Further, due to the slow economic recovery, there can be no assurance that we will be able to secure any acquisition financing under acceptable terms. Even if we successfully identify, finance the acquisition price and acquire suitable target companies, products, or technologies, the success of any acquisitions will depend upon our ability to integrate the acquired operations, retain and motivate acquired personnel and increase the customer base of the combined businesses.

We may not be able to accomplish any or all of these goals. Any future acquisitions would involve certain additional risks, including:

- difficulty integrating the purchased operations, technologies, or products;
- unanticipated costs, which would reduce our profitability;
- diversion of management's attention from our core business;

- potential entrance into markets in which we have limited or no prior experience; and

- potential loss of key employees, particularly those of the acquired business.

Failure to meet the volume requirements of our customers may result in a loss of business or contractual penalties.

Our long-term competitive position will depend, to a significant extent, on our manufacturing capacity. While we currently have sufficient manufacturing capacity to meet our foreseeable needs, if we lose the use of any of our production machines for any extended period, due to failures of such production machines or unanticipated maintenance and repairs, our production capacity will be compromised. The failure to have sufficient capacity, to fully utilize capacity when needed or to successfully integrate and manage additional capacity in the future could adversely affect our relationships with our customers and cause our customers to buy similar products from our competitors if we are unable to meet their needs. Our failure to produce required amounts of products under some of our contracts will result in price reductions on future sales under such contracts or penalties under which we would be required to reimburse the customer for the full cost of any product not delivered in a timely manner, either of which would reduce our gross margins and adversely affect our results of operations.

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Our major film customers are suppliers to OEMs; we therefore are dependent upon the end customers' demand for products supplied by these OEMs.

We sell a substantial portion of our products to a relatively small number of suppliers to original equipment manufacturers, or OEMs. The timing and amount of sales to these customers ultimately depend on sales levels and shipping schedules for the OEM products into which our products are incorporated. We have no control over the volume of products shipped or shipping dates by OEM customers, and we cannot be certain that these suppliers to OEM customers will continue to ship products that incorporate our products at current levels or at all. We currently have long-term contracts with only one of our suppliers to OEM customers. Failure of this customer or other suppliers to OEM customers to achieve significant sales of products incorporating our products and fluctuations in the timing and volume of such sales could be harmful to our business. Failure of our suppliers to OEM customers to inform us of changes in their production needs in a timely manner could also adversely affect our ability to effectively manage our business.

We rely upon our OEM customers for information relating to the development of new products so that we are able to meet end-user demands.

We rely on our OEM customers to inform us of opportunities to develop new products that serve end-user demands. If our OEM customers do not present us with market opportunities early enough for us to develop products to meet end-user needs in a timely fashion, or if the OEMs fail to accurately anticipate end-user needs, we may fail to develop needed new products or modify our existing products for the end-user markets for our products, or we may spend resources on developing products that are not commercially successful.

We depend on one distributor for the sale of our applied film products.

We have a distribution agreement with Solutia, which if not renewed, will expire in 2011, under which we granted Solutia an exclusive worldwide license to distribute our aftermarket applied film in the automotive and architectural glass markets. Failure of Solutia to achieve significant sales of products incorporating our products and fluctuations in the timing and volume of such sales could be harmful to our business. Further, the termination of our distribution agreement with Solutia would have a material adverse effect on our business.

We face intense competition, which could affect our ability to increase our revenue, maintain our margins and maintain or increase our market share.

The market for each of our products is intensely competitive and we expect competition to increase in the future. We compete based on the functionality and the quality of our product. Our competitors vary in size and in the scope and breadth of the products they offer. Many of our current and potential competitors have significantly greater financial, technical, marketing and other resources than we have. In addition, many of our competitors have well-established relationships with our current and potential customers and have extensive knowledge of our industry. If our competitors develop new technologies or new products, improve the functionality or quality of their current products, or reduce their prices, and if we are unable to respond to such competitive developments quickly either because our research and development efforts do not keep pace with our competitors or because of a lack of financial resources, we may be unable to compete effectively.

We are dependent on key suppliers of materials, which may prevent us from delivering product in a timely manner.

We manufacture all of our products using materials procured from third-party suppliers. We do not have long-term contracts with our third-party suppliers. Some of the materials we require are obtained from a limited number of sources and, in the case of certain materials, from a sole source. Interruptions in our supply of material, such as from

the recent natural disaster in Japan, or increases in the prices for such materials, would delay or increase the costs of our shipments to our customers. Delays or reductions in product shipments could damage our relationships with customers. Further, a significant increase in the price of one or more of the materials used in our products, if we are unable to pass these price increases along to our customers, would have a material adverse effect on our cost of goods sold and operating results.

We are dependent on a few qualified subcontractors to add properties to some of our products.

We rely on third-party subcontractors to add properties, such as adhesives, to some of our products. There are only a limited number of qualified subcontractors that can provide some of the services we require, and we do not have long-term contracts with any of them. Qualifying additional subcontractors could take a great deal of time or cause us to change product designs. The loss of one or more subcontractors could adversely affect our ability to meet our scheduled product deliveries to customers, which could damage our relationships with customers. If our subcontractors do not produce a quality product, our yield will decrease and our margins will be lower. Further, a significant increase in the price charged by one or more of our subcontractors could force us to raise prices on our products or lower our margins, which could have a material adverse effect on our operating results.

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We are dependent on key suppliers of production machines. Our inability to obtain new production machines on a timely basis from such suppliers may prevent us from delivering an acceptable product on a timely basis and limit our capacity for revenue growth.

Our production machines are large, complex and difficult to design and manufacture. It can take up to a year from the time we order a machine until it is delivered. Following delivery, it can take us, with the assistance of the manufacturer, up to six additional months to test and prepare the machine for commercial production. There are a very limited number of companies that are capable of manufacturing these machines. While we currently have sufficient manufacturing capacity with our existing production machines, our inability in the future to have new production machines designed, manufactured and prepared for commercial production in a timely manner would prevent us from delivering product on a timely basis and limit our capacity for revenue growth.

If we are unable to adequately protect our intellectual property, third parties may be able to duplicate our products or processes, or develop functionally equivalent or superior technology.

Our success depends in large part upon our proprietary technology. We rely on our know-how, as well as a combination of patent, trademark and trade secret protection, to establish and protect our intellectual property rights. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or processes or to obtain and use information that we regard as proprietary. Policing unauthorized use of our intellectual property is difficult and can be expensive. Our means of protecting our proprietary rights may not be adequate. In addition, the laws of some foreign countries do not protect our proprietary rights to the same extent as do the laws of the United States. Expiration of our patents, which will occur from 2011 to 2020, or our failure to adequately protect our proprietary rights may allow third parties to duplicate our products or develop functionally equivalent or superior technology. In addition, our competitors may independently develop similar technology or design around our proprietary intellectual property.

The sale of our products and the use of our technology may inadvertently infringe upon the intellectual property rights of others. In such event, we may be restrained in the sale of specific products or the continued use of specific technology, or we may be required to pay license fees to the owner of such other intellectual property.

The sale of our products and the use of our technology may inadvertently infringe upon the intellectual property rights of others. In such event, we may be prevented from the continued sale of such products or the continued use of such technology, or we may be required to pay substantial license fees to the owner of such other intellectual property. This could have a material adverse effect on our business and results of operations.

Performance, reliability or quality problems with our products may cause our customers to reduce or cancel their orders.

We manufacture our products according to specific, technical requirements of each of our customers. We believe that future orders of our products will depend in part on our ability to satisfy the performance, reliability and quality standards required by our customers. If our products have performance, reliability or quality problems, then we may experience:

- delays in collecting accounts receivable;
- higher manufacturing costs;
- additional warranty and service expenses; and

- reduced or cancelled orders.

If we fail to recruit and retain a significant number of qualified technical personnel we may not be able to improve our products or processes or develop and introduce new products on a timely basis, and our business will be harmed.

We require the services of a substantial number of qualified technical personnel. Intense competition and aggressive recruiting, as well as a high-level of employee mobility, characterize the market for skilled technical personnel. These characteristics make it particularly difficult for us to attract and retain the qualified technical personnel we require. We have experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled employees with appropriate technical qualifications. It is especially difficult for us to recruit qualified personnel to move to the location of our Palo Alto, California offices because of the high-cost of living there compared with many other parts of the country. If we are unable to recruit and retain a sufficient number of qualified technical employees, we may not be able to enhance our products or develop new products or processes in a timely manner. As a result, our business may be harmed and our operating results may suffer.

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We may be unable to attract or retain the other highly skilled management personnel that are necessary for the success of our business.

In addition to our dependence on our technical personnel, our success also depends on our continuing ability to attract and retain other highly skilled employees. We depend on the continued services of our senior management. Our officers have technical and industry knowledge that cannot easily be replaced. Competition for similar personnel in the industry in which we operate is intense. We have experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled management personnel with appropriate qualifications. If we do not succeed in attracting and retaining the necessary management personnel, our business could be adversely affected.

Our business is susceptible to numerous risks associated with international operations.

Revenues from international sales amounted to approximately 84%, 82% and 81% of our net revenues during 2010, 2009 and 2008, respectively. To achieve acceptance in international markets, our products must be modified to address a variety of factors specific to each particular country, as well as local regulations within each country. We may also be subject to a number of other risks associated with international business activities. These risks include:

- unexpected changes in and the burdens and costs of compliance with a variety of foreign laws and regulatory requirements;
- potentially adverse tax consequences;
- the continuation of global, economic uncertainty, the slow improvement in global credit markets, political instability and general economic conditions within each region or country;
- our ability to adapt to cultural differences that may affect our sales and marketing strategies;
- currency fluctuations described above; and
- natural disasters such as the recent earthquake in Japan.

If we fail to comply with environmental regulations, our operations could be suspended and we could be subject to substantial fines and remediation costs.

We use hazardous chemicals in producing our products and have air and water emissions that require controls. As a result, we are subject to a variety of local, state and federal governmental regulations relating to the storage, discharge, handling, emission, generation, manufacture and disposal of toxic or other hazardous substances used to manufacture our products, compliance with which is expensive. Our failure to comply with current or future regulations or our inadvertent failure to comply with regulations could result in the imposition of substantial fines on us, significant remediation expenses, suspension of production, alteration of our manufacturing processes, increased costs or cessation of operations. We might also be required to incur substantial expenses to comply with changes in such local, state and federal governmental regulations.

We may experience unanticipated warranty or other claims with respect to our products, which may lead to extensive litigation costs and expenses.

In the ordinary course of business, we have periodically become engaged in litigation principally as a result of disputes with customers of our architectural products. We may become engaged in similar or other lawsuits in the future. Some of our products that have been the basis for lawsuits against us could be the basis for future lawsuits. An

adverse outcome in the defense of a warranty or other claim could subject us to significant liabilities to third parties. Any litigation, regardless of the outcome, could be costly and require significant time and attention of key members of our management and technical personnel. It is our policy to satisfy claims from our customers that are covered by our product warranties. Unanticipated warranty claims that do not result in litigation may still expose us to substantial costs and expenses.

Market Risks

A few stockholders own a majority of our shares and will be able to exert control over us and over significant corporate decisions.

As of December 31, 2010 and 2009, Needham & Company, Inc. and its affiliates and Dolphin Direct Equity Partners, L.P. owned common stock and securities convertible into common stock, constituting in the aggregate 61.5% and 61.9%, respectively, of our potentially outstanding common stock. Needham & Company, Inc. and its affiliates, together as our largest stockholder, could delay or prevent a change of control of our company, control corporate decisions, or otherwise control the company in ways that might have a material adverse effect on our company or our other shareholders. Needham & Company, Inc. and it affiliates, together with Dolphin Direct Equity Partners, L.P., have sufficient beneficial ownership of our outstanding common stock to be able to control all corporate decisions requiring majority stockholder approval.

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If we fail to meet the expectations of public market analysts or investors, the market price of our common stock may decrease significantly.

Our quarterly revenues and operating results have varied significantly in the past and will likely vary significantly in the future. Our revenues and operating results may fall below the expectations of securities analysts or investors in future periods. Our failure to meet these expectations would likely adversely affect the market price of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our administrative, sales, marketing, research and development facilities are located in one location totaling 30,174 square feet in Palo Alto, California. This location is covered under a lease, which expires in 2016. We lease a second building, also located in Palo Alto, California, which consists of approximately 9,200 square feet and currently remains vacant. The lease expires on December 31, 2011.

Our film manufacturing facilities are located in one location, which is Company owned, in Großröhrsdorf, Germany, near the city of Dresden, Germany. This facility is ISO 9001/2000/14001 certified. The facility consists of approximately 60,000 square feet, has three production machines and manufactured 100% of our products during 2010.

Our film encapsulation and converting facility is located in one location, which is Company owned, in Sun Prairie, Wisconsin. This facility has been awarded an ISO 9001:2008 certification and consists of approximately 22,000 square feet, has three production machines, and supported 100% of our encapsulation requirements in 2010.

Our glass manufacturing facility is located in Chicago, Illinois. This leased facility consists of 75,640 square feet and manufactured 100% of the Company’s glass products in 2010. The lease expires in 2013.

ITEM 3. LEGAL PROCEEDINGS

We are involved in certain legal actions arising in the ordinary course of business. We believe, however, that none of these actions, either individually or in the aggregate, will have a material adverse effect on our business, our consolidated financial position, results of operations or cash flows.

ITEM 4. [REMOVED AND RESERVED]

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PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the Over-the-Counter Bulletin Board Market under the symbol "SWTX.OB". As of March 9, 2011, we effected a 1-for-5 reverse stock split of our common stock. Over-the-counter market quotations reflect inter-dealer prices without retail mark-up, mark-down, or commission and may not necessarily represent actual transactions. Prices in the following table represent the high and low bid quotations per share for our common stock as reported by Over-the-Counter Bulletin Board Market during the periods indicated. All amounts in the table have been adjusted to give effect to the reverse stock split.

	High	Low
2010		
1st Quarter	$ 8.00	$ 6.70
2nd Quarter	8.50	7.10
3rd Quarter	9.65	7.55
4th Quarter	13.60	9.65

	High	Low
2009		
1st Quarter	$ 4.00	$ 2.25
2nd Quarter	5.05	2.25
3rd Quarter	6.25	4.00
4th Quarter	8.75	5.75

On March 21, 2011, the last reported sale price for our common stock as reported on the Over-the-Counter Bulletin Board Market was $10.65. On such date, there were approximately 269 holders of record of our common stock, and there were approximately 2,041 beneficial owners of our common stock.

Dividends

We have never declared or paid any cash dividends on our common stock, and we do not anticipate paying cash dividends in the foreseeable future. Our Series A 10% Cumulative Convertible Preferred Stock (the “Series A Preferred Stock”) is entitled to cumulative dividends of 10% per year, payable at the discretion of our Board of Directors. However, we have not paid dividends on the Series A Preferred Stock, nor do we intend to pay dividends on the Series A Preferred Stock in the foreseeable future. We currently intend to retain current and future earnings, if any, to fund the expansion and growth of our business. Furthermore, payment of cash dividends on our common stock is prohibited without the consent of our holders of Series A Preferred Stock and Wells Fargo Bank, per the terms set forth in our credit facility agreement.

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Comparison of Cumulative Total Stockholder Return

The following performance graph assumes an investment of $100 on December 31, 2005 and compares the changes thereafter in the market price of our common stock with a broad market index, Composite Market Index, and an industry index, General Building Materials Index. We paid no dividends during the periods shown; the performance of each index is shown on a total return (dividend reinvestment) basis. The graph lines merely connect fiscal year-end dates and do not reflect fluctuations between those dates.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among Southwall Technologies Inc., a Composite Market Index
and General Building Materials Index

*$100 invested on 12/31/05 in stock or index, including
reinvestment of dividends.
Fiscal year ending December 31.

	12/05	12/06	12/07	12/08	12/09	12/10
Southwall Technologies Inc.	100.00	75.41	131.15	131.15	231.15	336.07
NASDAQ/AMEX/NYSE	100.00	117.55	130.10	79.60	103.69	120.02
General Building Materials	100.00	127.43	129.36	94.64	113.62	137.29