SOUTHWALL TECHNOLOGIES INC /DE/
Form 10-K
March 25, 2010

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, 2009

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)

_____

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 ¨

Indicated 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 ¨ 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 ¨ Smaller reporting company x
(Do not check if a smaller reporting company)

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, 2009 (based upon the closing sales price of the Common Stock on the Over-the-Counter Bulletin Market on such date) was $11,537,076. For purposes of this disclosure, Common Stock held by stockholders whose ownership exceeds five percent of the Common Stock outstanding as of June 30, 2009, 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 1, 2010 was 28,791,089.

DOCUMENTS INCORPORATED BY REFERENCE

Document Description	10-K Part
Portions of the Registrant’s Proxy Statement for the Annual Meeting of Stockholders to be held May 12, 2010	III

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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;
- pending and threatened litigation and its outcome;
- our competition and our ability to compete in the markets we serve; and
- our projected capital 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

(amounts in thousands, except per share data)

ITEM 1. BUSINESS

Overview

Southwall is a developer and manufacturer of high performance films and, beginning in 2008, glass products that improve energy efficiency in architectural and automotive glass applications. Founded in response to the oil embargo of 1973, Southwall has approximately 30 years of experience and commercial adoption of its products worldwide. Our products are designed to assist our green building construction and transportation customers in their efforts to decrease carbon emissions which may reduce the use of oil and electricity in the heating and cooling of buildings and vehicles.

Our customers were not immune to the global economic downturn of 2009. We believe both the architectural and automotive industries experienced material sales declines, which negatively impacted our financial results. In 2009, our net revenues were $32,103, a 23% decrease from net revenues of $41,920 in 2008. Despite the challenging environment, Southwall maintained profitability, increased cash, retained its long-term customers, and invested for growth.

In April 2008, we entered into a joint venture with Sound Solutions Windows & Doors, LLC to begin production of insulated glass units to meet the increasing demand for higher energy efficiency glass in residential and commercial buildings. Southwall Insulating Glass, LLC (“SIG” or “Southwall Insulating Glass”), the joint venture, produces and sells energy efficient, dual-pane insulated glass units which are primarily used in the production of completed window units for the residential housing and commercial building industries. SIG incorporates proprietary design and automated manufacturing in its production of insulated glass units. The joint venture’s facility is located in Chicago, Illinois and began production of Heat Mirror insulating glass units and other high performance insulated glass units in the second half of 2008.

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.

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Industry Background

Architectural glass products

Glass use, as a percentage of a building's exterior, has dramatically increased in the past 20 years. Much of this increase was a result of improvements in low-emissivity, or low-e, coating technology and insulating glass developed in response to increasing Energy Star requirements. According to the U.S. Green Building Council (the "USGBC"), despite the use of heavily insulated walls and ceilings and low-e glass insulating technology, it is estimated that approximately 25 to 35 percent of energy is wasted due to inefficient windows and doors; windows being the weak link in thermal insulation performance. Over the last two decades, the glass industry has relied upon advances in coating technology to improve energy performance. Coated glass is commonly available with emissivity ratings of less than 0.03, leaving little room for additional improvement in insulation performance. Therefore, innovation relating to low-e coating technology is limited, and its performance represents the baseline for improved energy performance. Use of coatings and suspended film technologies has proven to improve the insulating properties of gas-filled and other window cavity technologies.

Buildings account for a significant amount of the world's total energy consumption and carbon emissions. In the United States, the Energy Information Administration ("EIA") claimed in its 2008 EIA Annual Energy Outlook that buildings account for approximately 39% of total CO2 emissions. EIA data shows that 40% of our nation's energy is consumed by heating, cooling, and operating buildings of all types. Energy efficiency in existing buildings and new construction has thus become a point of global focus. This has created new awareness that energy lost through inefficient glass is one of the primary sources of heat loss and build-up in buildings.

The construction and transportation industries have been under increasing pressure from governmental agencies and other groups world-wide to significantly improve the insulating properties of commercial buildings, homes and vehicles. This reform has resulted in increased usage of various insulating glass products.

Auto glass products

Insulating glass is currently used in various portions of vehicles world-wide with the intention of improving passenger comfort, light control and reduce the cooling load of vehicles. Large area, single layer, thin film coatings were developed in the early 1960s using vacuum evaporation, a less precise precursor to the sputter coating process. As a result of technological developments in the early 1970s, multi-layer coatings for large substrates became possible. Sputter coating based on these developments is used today in many applications in which high quality uniform coatings need to be deposited on large surfaces or on many smaller surfaces simultaneously. Examples of sputter coating include depositing various metal and metal oxide layers on wafers in the semiconductor and hard disk industries, and optical coatings on transparent surfaces in the automotive glass, architectural glass and electronic display markets.

Thin film coatings are used in a wide variety of applications to control the flow of energy and the transmission and reflection of light. Thin film coatings can modify the transmission, reflection and absorption of both visible and non-visible light, such as infrared and ultra-violet light, to enhance the performance and characteristics of the coated material.

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According to the US Department of Energy's Vehicle Ancillary Load Reduction Project Close-Out Report, approximately 230 million vehicles in the US consume approximately 7 billion gallons of fuel annually to power air conditioning ("AC"). A current focus of the California Air Resource Board is the improvement of fuel economy in passenger cars. In 2009, the Board implemented regulations that would require additional glass insulating properties in passenger vehicles sold in California which could require the use of some of our products. It is believed that improving the insulating properties of the glass and increased use of heat reflective glass in additional parts of vehicles may assist in reducing the amount of solar heat entering a car, enabling automotive engineers to downsize the AC system while maintaining a comfortable cabin temperature.

Thin film coating methods

We believe the three most common methods for commercially producing thin film coatings on glass and flexible substrates are:

Wet coating. The wet coating process generally involves depositing a thin layer of material onto 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 by 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 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.

Sputter coating onto flexible film substrates. The sputter coating process, which is the process we primarily employ, deposits a thin 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 or applied to glass or suspended between panes of glass. The substrate can be applied to both flat glass and curved glass, such as is used in automotive applications.

The thin film coating process begins with a clear base substrate that is typically glass or a flexible polyester film. When using a flexible film, a hard coat is sometimes applied to prevent undesired interactions between the materials to be deposited and the base substrate, as well as to improve the mechanical properties of the coating. Various materials are then deposited in very thin layers on the substrate. The process of building up the various layers results in a "stack." The stack consists of layers of materials that produce the desired optical and performance effects. In some applications, primarily with flexible films, adhesive or protective layers may be applied to the substrate to improve the subsequent application of the product onto a rigid substrate, such as glass.

Markets

Our primary markets for the energy efficient insulated glass units and thin films that we manufacture are the high performance architectural and automotive glass markets. We believe that our proprietary design and automated manufacturing advances at SIG coupled with our thin film sputter coating technologies and process innovations improve operating efficiencies and enable Southwall to more effectively compete in these growing markets.

Architectural and Green Building Market

Our proprietary Heat Mirror insulating film, other thin film insulating products and our insulated glass units provide an option for window and door manufacturers to improve the insulating characteristics of the products they sell to their markets. These films, including Heat Mirror, are suspended or laminated between two pieces of glass or applied to existing building glass in the aftermarket to provide levels of energy efficiency sought after in green building and other applications worldwide.

Automotive Market

The EIA has publicly stated that transportation accounts for 33% of total CO2 emissions in the United States. It is believed that transportation contributes significantly more to CO2 emissions in developing markets such as China and India, where automobile usage is rapidly increasing.

Such findings have increased awareness in many parts of the world regarding the reduction of CO2 emissions from automobile usage. Nearly all automotive glass in the world uses some degree of tint or coloration to absorb light and solar energy, thus reducing solar transmission into the vehicle. This tint is usually created through the mixing of inorganic metals and metal oxides into the glass as the glass is produced. The cost of adding these tints or colorations is very low, but the solar control benefit is limited because solar energy is absorbed in the glass, causing the glass to heat up, which eventually increases the temperature inside the vehicle. The issue of temperature inside the vehicle has created a demand for comfort management, which represents a primary factor relating to fuel usage and CO2 emissions in automobiles, specifically through the use of AC systems.

The thin films we sell in the automotive glass product market reflect infrared heat. They allow automobile and truck manufacturers to use more glass and increase energy efficiency by reducing the demand on a vehicle's AC system, as well as improve thermal comfort for passengers in the vehicle.

Our thin films are laminated between two pieces of automotive glass by original equipment manufacturers (“OEMs”) that produce glass for sale to manufacturers of new cars and trucks, or are applied to existing automotive glass by distributors and installers in the aftermarket. Our primary market is worldwide automotive. Our products are also used in the broader transportation market, including commercial vehicles, trains, and ships.

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Other Markets

We sell an insignificant amount of product to the solar energy market, which is trending to innovations with thin film. Our focus remains on our core architectural and automotive markets; however, we plan to continue to evaluate opportunities in the solar energy market as they may develop.

Also in the past, we have sold to the electronic display product market, and while we may do so again, we do not intend to pursue this market in the foreseeable future. In 2009, we sold a minimal amount into this market. The thin film coated products we have sold primarily enhance the light output of liquid crystal display ("LCD") screens used in notebook personal computers and increase the performance of high resolution touch panel screens used in cell phones and personal data assistants ("PDAs"). Thin film coated substrates in this market are generally sold to OEMs.

Technology

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 as the substrate moves through the vacuum chamber, we can create a multi-layered coating, or stack.

If the process gas is inert, such as argon, the coating will have the same composition as the target material. As an example, many of our coatings have a layer of silver in the stack. However, by adding a reactive gas such as oxygen or nitrogen to the process, it is possible to create metal oxide or metal nitride coatings from a metal target.

The advantages of our sputtering process include the high density of the formed coatings and the high degree of uniformity control that we can achieve.

The Heat Mirror insulating glass unit ("IGU") manufacturing process utilizes standard and custom glass fabrication equipment to assemble an IGU with Heat Mirror film suspended in the center to create a multi-cavity glazing unit. In this proprietary process, the Heat Mirror film is assembled onto special frames, or spacers, utilizing polyisobutylene 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 Heat Mirror IGU's, is applied to enhance environmental stability and support the Heat Mirror film. During the manufacturing process, the Heat Mirror film is tensioned in the IGU so that it is not seen.

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 out-performs dual-pane IGU's and insulates like a clear wall.

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 21 issued patents and approximately 10 patent applications pending in the United States, and approximately 20 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.

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The following table describes 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 Glass	Heat Mirror® insulated glass	Glass for new and retrofit residential and commercial windows and doors	· Improves energy efficiency to R5+: cool in summer; warm in winter · UV blocking	Serious Materials Owens Corning Sofraver SA
	XIR film for laminated glass	Commercial building glass	· Infrared reflecting; reduces air conditioning load · UV blocking · Cool in summer · Noise reducing	Kaisheng Building Materials Cristales Curvados Procesadora de Jalisco SA
	Solis and Ceramic applied window films	Aftermarket install on existing residential and commercial window glass	· Transmits up to 75% visible light · Reflects up to 85% of infrared heat energy	GlobaMatrix Hüper Optik
Automotive Glass	Infrared Reflective XIR 70 and XIR 75 films	Solar control for windshields, side windows, back windows and sunroofs; OEM	· Transmits up to 75% visible light · Reflects up to 85% of infrared heat energy	Saint Gobain Sekurit Pilkington Plc Shatterprufe Guardian Llodio S.L.
	Solis applied window film	Solar control for windshields, side windows, back windows; Aftermarket	· Transmits up to 75% visible light · Reflects up to 85% of infrared heat energy	GlobaMatrix Hüper Optik
Solar	Reflective Silver	Concentrated solar thermal (CSP) reflector systems	· High reflectivity · Lightweight	Sky Fuel/Reflec Tech
	Transparent Conductive Oxide (TCO)	Flexible, thin film photovoltaic modules	· High transparency and conductivity · Flexible	Konarka
Electronic Display	Reflective Silver	Liquid crystal display (LCD) monitors and touch screens for	· Enhance light output	Synaptics

	notebook PCs, cell phones and PDAs	· High transparency and conductivity	
Indium Tin Oxide (ITO)	Liquid crystal display (LCD) monitors and touch screens for notebook PCs, cell phones and PDAs	· Enhance light output · High transparency and conductivity	Dontech

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Architectural glass products

Our architectural XIR film is laminated between panes of glass, and performs similarly to our XIR solar control films for automobiles. This film is currently sold primarily to fabricators of laminated window glass for large commercial building applications such as airports, office buildings, and museums. We have licenses with approximately 20 fabricators in approximately 15 countries for the sale of this architectural film product

We also manufacture and sell Heat Mirror, which is a more technologically advanced insulating film. We believe windows containing our Heat Mirror IGUs have the equivalent or greater insulating capacity of conventional triple pane windows, helping to lower annual energy costs and reducing carbon emissions from buildings as compared to older technologies. We feel an advantage to our Heat Mirror product is the lighter weight of Heat Mirror IGUs compared to conventional triple pane windows, which will potentially allow architectural glass manufacturers to improve insulation characteristics at a lower overall weight, eliminating the need for the additional hardware and support structure that can be required in triple-pane applications.

We sell Heat Mirror film in rolls to window manufacturers, who then suspend the film in the airspace between sealed, double-pane residential and commercial windows as part of their fabrication process. We also sell Heat Mirror IGUs to window manufacturers through SIG. To mount Heat Mirror film in IGUs we have developed proprietary film-mounting technology, which we license to the window fabricators. We have licenses with approximately 50 window fabricators in approximately 20 countries for the sale of our Heat Mirror films and the license of our film-mounting technology. We currently offer 15 different Heat Mirror films for architectural applications.

The architectural glass aftermarket uses our XIR, Ceramic, and other patented coating technologies. These products are applied to existing windows and have a protective hard coat over the patented, transparent solar-control coating on one side and an adhesion layer on the other. Our aftermarket applied window film is sold pursuant to an exclusive worldwide license contained in our distribution agreement with GlobaMatrix Holdings Pte, Ltd. (“GlobaMatrix”) and its subsidiaries, V-KOOL, Hüper Optik and IQue.

Our net revenues from sales of architectural film products were $6,353, $6,358 and $5,957 in 2009, 2008 and 2007, respectively.

Our net revenues from sales of aftermarket applied window film products were $9,346, $15,691, and $13,989 and in 2009, 2008 and 2007, respectively.

Automotive glass products

Our XIR coated solar-control films are transparent, sputter-coated, polyester films used in laminated glass for automobiles. The films have a patented, transparent solar-control coating on one side and a proprietary adhesion-promotion layer on the other. We sell our XIR coated solar-control films primarily to OEMs that produce glass for sale to manufacturers of new cars and trucks for worldwide distribution.

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 as well, and can be incorporated into most in-line windshield production processes used by glass companies today.

The automotive glass aftermarket uses our XIR patented coating technologies. These products are applied to the inside of existing automotive windows and have a protective hard coat over the patented, transparent solar-control coating on one side and an adhesion layer on the other. Our aftermarket applied window film is sold pursuant to an exclusive worldwide license contained in our distribution agreement with GlobaMatrix and its subsidiaries, V-KOOL,

Hüper Optik.

Our net revenues from sales of automotive glass products were $16,040, $19,298 and $15,113 in 2009, 2008 and 2007, respectively.

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Sales and Marketing

Distribution channels

We sell our automotive related products primarily to OEMs in North America, and through our direct sales force in Europe.

We supply our Heat Mirror architectural products to approximately 50 insulated glass and window fabricators and distributors worldwide. 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-equipped windows

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

International Revenues

International revenues amounted to approximately 82%, 81% and 77% of our net revenues during 2009, 2008 and 2007, respectively. The principal foreign markets for our products were Germany and France, accounting for $14,471, $16,199 and $8,824, respectively, in net revenues in 2009, 2008 and 2007 and the Pacific Rim and Japan, accounting for $8,738, $13,638 and $13,624 in 2009, 2008 and 2007, respectively.

Customers

We have created 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.

A small number of customers have accounted for a substantial portion of our revenues. Our seven largest customers accounted for approximately 69%, and 74% of our net revenues in 2009 and 2008, respectively. Our nine largest customers accounted for approximately 78% of our net revenues in 2007. During 2009, GlobaMatrix, Pilkington PLC, Saint Gobain Sekurit and Guardian accounted for 24%, 20%, 11% and 10%, respectively, of our net revenues. During 2008, GlobaMatrix, 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.

Automotive Glass Market

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

Automotive Glass and Architectural Glass, Aftermarket

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 GlobaMatrix. Under our agreement, GlobaMatrix 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 GlobaMatrix. We have supplied at least the minimum volumes required in each of the contract years. Under our agreement with GlobaMatrix, GlobaMatrix agreed to a 2004 minimum purchase commitment of $9,000 of product. For each year after 2004 through the term of the contract, GlobaMatrix contracted to purchase an amount of product equal to 110% of the amount of product it was required to purchase in the prior year.

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Customers for Architectural, New and Retrofit Markets

Our customers are suppliers to the architectural glass industry, including: Sofraver S.A., Serious Materials, Shenzhen Kaisheng Energy Saving Technology Co., ECO Insulating Glass, and about 60 other companies worldwide. These customers manufacture and supply IGUs or laminated glass that incorporates our films. Additionally, a portion of the aftermarket applied film that we sell to GlobaMatrix under our distribution agreement is installed on architectural glass in homes and buildings. Our customers represent a small portion of the worldwide architectural glass market.

Other Markets

Our net revenues from sales of electronic display products were $130, $29 and $1,723 in 2009, 2008 and 2007, respectively. Electronic display products are not representative of our core film business, and given the low margins in this market, we do not intend to pursue this market in the foreseeable future.

We also sell a limited amount of solar products. Our net revenues for the sales of solar product were $234, $494 and $951 in 2009, 2008 and 2007, respectively. Our net revenues from solar products are reported as part of our electronic display revenues.

Research and Development

Our research and development activities are focused on the development of new proprietary products, thin film materials science, deposition process optimization and automation and applied engineering. Our research and development expenditures totaled $2,874, $2,996 and $4,505 or approximately 9%, 7% and 12% of net revenues in 2009, 2008 and 2007, 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 world's largest commercial projects. In 2009, we focused our engineering efforts in improving the manufacturability of Heat Mirror IGUs, developing automotive XIR products to meet the impending California Air Resources Board cool car regulation and improve the performance of Heat Mirror products. We also continued the development and initiated qualification of Indium Tin Oxide conductive coatings for the rapidly expanding 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.

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 2009.

Location	Primary Markets For Current Production	Year Commercial	Estimated Annual Capacity

		Production Initiated	(Millions of Sq. Ft.) (1)
Palo Alto, California	Research and development	1982	8.0
Dresden, Germany	Automotive, architectural, electronic display and window film	2000	48.0

(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.

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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.

Germany Facility

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 products during 2009.

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. Also, 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.

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, 2010 and February 28, 2009, we had a backlog of orders for shipment over the following 12 months of approximately $9,143 and $3,890, respectively. We expect to ship the entire backlog listed as of February 28, 2010 during 2010. These are firm orders and are not subject to cancellation.

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Competition

The thin film coatings 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 glass 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, 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 2009 our coated substrates were used in less than 1% of the total worldwide automotive OEM glass produced.

Architectural glass market. Products that provide solar control and energy conservation have been available to this market for approximately 25 years. Since our introduction of our Heat Mirror film products in 1979, large glass producers, 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 2009 our coated substrates were used in less than 1% of the glass used worldwide in residential and commercial buildings.

Applied window film market. In the applied window film segment of the market, companies 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 2009 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;

- The high quality of our products; and

- Our ability to easily alter the format of our products, providing our customers with inventory versatility and higher production yields.

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, 2009, we had 110 employees, of whom 14 were engaged in engineering, 65 in manufacturing, 11 in sales and marketing, 2 in purchasing and 18 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.

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ITEM 1A. RISK FACTORS

(amounts in thousands, except per share data)

Financial Risks

The global economic and financial market crisis we are continuing to experience may have a negative effect on our business and operations.

The global economic and financial market crisis we are continuing to experience 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, all of which could have a negative effect on our business, results of operations, financial condition and liquidity. Many of our customers, distributors and suppliers have been or may be severely affected by the current economic turmoil. Current or potential customers and suppliers and subcontractors may no longer be in 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 recovery in the credit and financial markets remains uncertain, and there can be no assurance that market conditions will improve in the near future or that our results will not 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.

Declining production of automobiles and commercial and residential real estate due to the economic climate could harm our business.

Global production of automobiles and commercial and residential real estate construction continued to decline significantly in 2009 despite some improvements in the second half of 2009. 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. Continuing declines in the automobile and commercial and residential real estate markets 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 significant customers or suppliers significantly reduce their transactions with us, our business will be harmed. As a result, our revenues, income and financial condition may decline in 2010 and beyond.

Capital markets are currently experiencing a period of disruption and instability, which could have a negative impact on the availability and cost of capital.

The general disruption in the global capital markets has impacted the broader financial and credit markets and reduced the availability of debt and equity capital for the market as a whole. 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.

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Credit market developments may reduce availability under our credit agreement.

Due to the current uncertainty in the credit markets, there is risk that lenders, even those with strong balance sheets and sound lending practices, could fail or refuse to honor their legal commitments and obligations under existing credit commitments, including but not limited to: extending credit up to the maximum permitted by a credit facility, allowing access to additional credit features and otherwise accessing capital and/or honoring loan commitments. If our lenders fail to honor their legal commitments under our credit facilities, it could be difficult in the current environment to replace our facilities on similar terms. The failure of any of the lenders under our credit facilities may impact our ability to finance our operating or investing activities.

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, 2009, we had total outstanding obligations under our loan and capital lease agreements of $4,166. 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, 2009, 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 2009, 2008 and 2007, approximately 48%, 48% and 42% 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, during 2009 and 2008, the dollar continued to weaken against the Euro, which negatively impacted our cost of doing business.

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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 seven largest customers accounted for approximately 69% and 74% of our net revenues in 2009 and 2008, respectively. Our nine largest customers accounted for approximately 78% of net revenues in 2007. 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 glass 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 glass 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.

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.

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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. Given the continued weakness in the economy and the global credit crisis, 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 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 after-market products.

We have a distribution agreement with GlobaMatrix, which if not renewed would expire in 2011, under which we granted GlobaMatrix an exclusive worldwide license to distribute our after-market applied window film in the automotive and architectural glass markets. Failure of GlobaMatrix 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 GlobaMatrix 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 our 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 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.

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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.

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. One of our U.S. patents relating to our architectural products, Heat Mirror, expired in 2006. Expiration of our other 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 otherwise 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.

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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.

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.

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

Revenues from international sales amounted to approximately 82%, 81% and 77% of our net revenues during 2009, 2008 and 2007, 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 turbulence, the crisis 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; and
- currency fluctuations described above.

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.

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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, 2009 and 2008, 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 61.9% 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.

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.

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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 two leases, both of which expire on June 30, 2011. A second building, also located in Palo Alto, California, consists of approximately 9,000 square feet and currently remains vacant.

Our 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 2009.

ITEM 3. LEGAL PROCEEDINGS

In September 1995, Pilkington Automotive Deutschland GmbH, Witten ("Pilkington") filed a patent application in Germany for XIR film characteristics. Southwall challenged the patent. This patent was revoked by the German Patent Court on April 20, 2004. On October 28, 2009, we entered into a settlement agreement related to various patent matters with Pilkington. Under the terms of this agreement, we agreed to pay Pilkington an aggregate amount of $583 (400 Euros) as a full and final settlement of all claims.

We are involved in certain other 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. 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". 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.

	High	Low
2009		
1st Quarter	$ 0.80	$ 0.45
2nd Quarter	1.01	0.45
3rd Quarter	1.25	0.80
4th Quarter	1.75	1.15

	High	Low
2008		
1st Quarter	$ 0.88	$ 0.69
2nd Quarter	1.87	0.68
3rd Quarter	1.60	1.02
4th Quarter	1.10	0.60

On March 1, 2010, the last reported sale price for our common stock as reported on the Over-the-Counter Bulletin Board Market was $1.44. On such date, there were approximately 280 holders of record of our common stock, and we believe there were approximately 3,000 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, 2004 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.

	12/04	12/05	12/06	12/07	12/08	12/09
Southwall Technologies Inc.	100.00	35.47	26.74	46.51	46.51	81.98
NASDAQ/AMEX/NYSE	100.00	107.62	126.95	141.83	86.03	116.83
General Building Materials	100.00	107.88	137.70	139.63	102.33	122.84

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ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data as of and for each of the five years ended December 31, 2009 is derived from our consolidated financial statements. This information should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K.

Consolidated Statements of Operations Data:

	Years Ended December 31,				
	2009	2008	2007	2006	2005
	(in thousands, except per share data)				
Net revenues	$ 32,103	$ 41,920	$ 37,733	$ 40,209	$ 54,754
Cost of revenues	17,704	24,378	23,907	24,746	37,241
Gross profit	14,399	17,542	13,826	15,463	17,513
Gross profit %	44.8%	41.8%	36.6%	38.5%	32.0%
Operating expenses (income):					
Research and development	2,874	2,996	4,505	6,782	5,104
Selling, general and administrative	8,037	8,199	9,843	12,005	8,332
Contract termination settlement	-	-	(2,959)	-	-
Restructuring (recoveries) costs, net	(56)	-	56	915	-
Recoveries for long-lived assets, net	-	-	(32)	(214)	(170)
Total operating expenses	10,855	11,195	11,413	19,488	13,266
Income (loss) from operations	3,544	6,347	2,413	(4,025)	4,247
Interest expense, net	(570)	(586)	(692)	(737)	(973)
Other income (expense), net	2,844	(62)	2,346	210	75
Income (loss) before provision for income taxes	5,818	5,699	4,067	(4,552)	3,349
Provision for income taxes	154	511	510	958	29
Net income (loss)	5,664	5,188	3,557	(5,510)	3,320
Deemed dividend on preferred stock	489	489	489	489	490
Net income (loss) attributable to common stockholders	$ 5,175	$ 4,699	$ 3,068	$ (5,999)	$ 2,830
Net income (loss) per share:					
Basic	$ 0.18	$ 0.17	$ 0.11	$ (0.22)	$ 0.11
Diluted	$ 0.16	$ 0.15	$ 0.11	$ (0.22)	$ 0.10
Weighted average shares used in computing net income (loss) per share:					
Basic	28,730	28,252	27,576	26,949	26,743
Diluted	34,486	34,262	33,240	26,949	32,895

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Consolidated Balance Sheet Data:

	As of December 31,				
	2009	2008	2007	2006	2005
	(in thousands)				
Cash, cash equivalents and restricted cash	$ 12,454	$ 11,050	$ 6,786	$ 5,733	$ 7,002
Working capital	16,020	12,607	7,879	3,686	8,691
Property, plant and equipment	14,393	15,012	17,071	17,232	16,857
Total assets	38,911	37,285	37,267	35,501	39,641
Term debt and capital leases including current portion	4,166	6,268	9,426	9,627	10,107
Total liabilities	11,758	15,877	20,574	23,655	23,702
Preferred stock	4,810	4,810	4,810	4,810	4,810
Total stockholders' equity	22,343	16,598	11,883	7,036	11,129

Selected Cash Flow Data:

	Years Ended December 31,				
	2009	2008	2007	2006	2005
	(in thousands)				
Net cash provided by operating activities	$ 5,228	$ 7,100	$ 5,695	$ 748	$ 4,006
Net cash provided by (used in) investing activities	(1,430)	563	(757)	(505)	(342)
Net cash used in financing activities	(1,967)	(3,247)	(4,033)	(1,533)	(1,566)

Quarterly Financial Data:

The following table sets forth a summary of our quarterly financial data for the fiscal years ended December 31, 2009 and December 31, 2008. This information has been derived from our unaudited condensed consolidated financial statements and has been prepared on the same basis as our audited consolidated financial statements contained in this report. It includes all adjustments, consisting only of normal recurring adjustments that we consider necessary for a fair presentation of such information when read in conjunction with our audited financial statements and related notes. Operating results for any quarter are not necessarily indicative of results for any future period. This information should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and related notes included elsewhere in this report.

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Selected Quarterly Financial Information (Unaudited):

	Quarters Ended			
	March 31, 2009	June 30, 2009	Sept. 30, 2009	Dec. 31, 2009
	(in thousands, except per share amounts)			
Net revenues	$ 6,496	$ 8,334	$ 8,600	$ 8,673
Cost of revenues	4,051	4,636	4,867	4,150
Gross profit	2,445	3,698	3,733	4,523
Income before provision for income taxes	2,436	1,538	693	1,151
Net income	2,279	1,504	710	1,171
Deemed dividend on preferred stock	122	122	122	123
Net income attributable to common stockholders	$ 2,157	$ 1,382	$ 588	$ 1,048
Net income per share:				
Basic	$ 0.08	$ 0.05	$ 0.02	$ 0.04
Diluted	$ 0.07	$ 0.04	$ 0.02	$ 0.03
Weighted average shares used in computing net income per share:				
Basic	28,707	28,709	28,728	28,776
Diluted	33,770	33,799	34,685	35,688

	Quarters Ended			
	March 31, 2008	June 30, 2008	Sept. 30, 2008	Dec. 31, 2008
	(in thousands, except per share amounts)			
Net revenues	$ 10,570	$ 13,685	$ 10,632	$ 7,033
Cost of revenues	5,719	7,960	6,383	4,316
Gross profit	4,851	5,725	4,249	2,717
Income (loss) before provision for income taxes	2,158	2,555	1,013	(27)
Net income (loss)	2,045	2,348	1,008	(213)
Deemed dividend on preferred stock	122	122	122	123
Net income (loss) attributable to common stockholders	$ 1,923	$ 2,226	$ 886	$ (336)
Net income (loss) per share:				
Basic	$ 0.07	$ 0.08	$ 0.03	$ (0.01)
Diluted	$ 0.06	$ 0.07	$ 0.03	$ (0.01)
Weighted average shares used in computing net income (loss) per share:				
Basic	27,820	28,065	28,409	28,705
Diluted	33,520	34,555	34,681	28,705

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Other factors that could affect our quarterly operating results include those described elsewhere in this report and 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;

- 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 existing 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.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

(amounts in thousands, except per share data)

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with Item 6, "Selected Consolidated Financial Data", our consolidated financial statements and notes thereto appearing elsewhere in this report and the risk factors set forth in Item 1A, “Risk Factors”. This discussion and analysis contains forward-looking statements that involve risks and uncertainties. You should not place undue reliance on these forward-looking statements. Our actual results may differ materially from those anticipated in these forward-looking statements. A brief description of the forward-looking statements appears immediately preceding Item 1, “Business”, and a discussion of certain factors that may cause our actual results to differ from those anticipated in the forward-looking statements appears in Item 1A, “Risk Factors”.

Overview

Southwall is a developer and manufacturer of 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 30 years of experience and commercial adoption of its products worldwide. Our products enable green building and transportation customers to decrease carbon emissions and reduce the use of oil and electricity in the heating and cooling of buildings and vehicles.

Our customers were not immune to the global economic downturn of 2009. Both the architectural and automotive industries experienced material sales declines, which impacted our financial results. In 2009, our net revenues were $32,103, a 23% decrease from net revenues of $41,920 in 2008. Despite the challenging environment, Southwall maintained profitability, increased cash, retained its long-term customers, and invested for growth.

In April 2008, we formed Southwall Insulating Glass, LLC (“SIG” or “Southwall Insulating Glass”), a joint venture with Chicago-based manufacturer, Sound Solutions Windows & Doors, LLC, in response to the demand for higher energy efficiency glass in residential and commercial buildings. SIG produces and sells energy efficient, dual-pane insulated glass units which are primarily used in the production of completed window units for the residential housing and commercial building industries.

SIG incorporates proprietary design and automated manufacturing in its production of insulated glass units. The joint venture’s facility is located in Chicago, Illinois, and began production of Heat Mirror insulating glass units and other high performance insulated glass units in the second half of 2008.

Financing and Related Transactions

On December 18, 2003, we entered into an investment agreement with Needham & Company, Inc., Needham Capital Partners II, L.P., Needham Capital Partners II (Bermuda), L.P., Needham Capital Partners III, L.P., Needham Capital Partners IIIA, L.P., Needham Capital Partners III (Bermuda), L.P. (together referred to as “Needham Company and its Affiliates”) and Dolphin Direct Equity Partners, L.P. (collectively with Needham Company and its Affiliates (“the Investors”). Through a series of transactions, we issued an aggregate of 4,893 shares of Series A Preferred Stock. Needham Company and its Affiliates received 3,262 shares of Series A Preferred Stock and Dolphin Direct Equity Partners, L.P. received 1,631 shares of Series A Preferred Stock.

Each share of the Series A Preferred Stock shares has a stated value of $1.00 and is entitled to a cumulative dividend of 10% per year, payable at the discretion of the Board of Directors. Dividends on the Series A Preferred Stock accrue

daily commencing on the date of issuance and are deemed to accrue whether or not earned or declared and whether or not there are profits, surplus or other funds legally available for the payment of dividends. Accumulated dividends, when and if declared by the Board of Directors, will be paid in cash. At December 31, 2009, $2,446 of deemed dividends on the Series A Preferred Stock had been accrued to date.

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Each share of the Series A Preferred Stock is convertible into common stock at any time, at the option of the holder, at the conversion price of $1.00 per share, subject to certain adjustments.

At December 31, 2009, Needham Company and its Affiliates and Dolphin Direct Equity Partners, L.P. owned 39.3% and 16.1%, respectively, of our outstanding common stock. In addition, if Needham Company and its Affiliates and Dolphin Direct Equity Partners, L.P. had converted their shares of Series A Preferred Stock into common stock at December 31, 2009, they would have owned 43.3% and 18.6%, respectively, of our outstanding common stock.

Upon a liquidation or dissolution of the Company, the holders of Series A Preferred Stock are entitled to be paid a liquidation preference out of assets legally available for distribution to our stockholders before any payment may be made to the holders of common stock. The liquidation preference is equal to $1.00 per share, plus any accumulated but unpaid dividends. Mergers, the sale of all or substantially all of our assets, the acquisition of the Company by another entity and certain other similar transactions may be deemed to be liquidation events for these purposes.

Portfolio Financial Servicing Company, Bank of America and Lehman Brothers. On February 20, 2004, we entered into a settlement agreement with Portfolio Financial Servicing Company (as successor to Matrix Funding Corporation), Bank of America and Lehman Brothers, which extinguished a claim arising out of sale-leaseback agreements with Matrix Funding Corporation, which we entered into in connection with the acquisition of two of our production machines. As part of the settlement, we agreed to pay a total of $2,000 plus interest over a period of 6 years. The settlement required us to make an interest payment in 2004, and beginning in 2005, to make quarterly principal and interest payments through 2010. We also agreed to return the production machines in question. During the first quarter of 2009 we paid $995, as complete settlement of all obligations, including principal and interest. Upon final payment of principal and interest, a formal release of the obligation under the 2004 settlement agreement was obtained from Portfolio Financial Servicing Company on January 21, 2009, and a gain of $2,359 was recognized in the first quarter of 2009 in other income (expense), net, in the accompanying consolidated statements of operations.

Other Factors Affecting Our Financial Condition and Results of Operations

Demand for our customers' products. We derive significant benefits from our relationships with a few large customers. Our revenues and gross profit can increase or decrease rapidly reflecting underlying demand for the products by one or a small number of our customers. We may also be unable to replace a customer when a relationship ends or demand for our product declines as a result of evolution of our customers’ products.

Our customers include, Pilkington PLC, Saint Gobain Sekurit and GlobaMatrix, which collectively accounted for approximately 51%, 58%, and 50% of our total revenues in 2009, 2008 and 2007, respectively.

Under our amended agreement, GlobaMatrix is required to purchase an amount of product equal to 110% of the amount of product it was required to purchase in the prior year. GlobaMatrix was obligated to purchase approximately $14,700 of products in 2009. During 2009, GlobaMatrix purchased approximately $7,600 of product.

Sales returns and allowances. Our gross margins and profitability have been adversely affected from time to time by product quality and warranty claims. From 2005 to 2009, returns and allowances have averaged 2.7% of gross sales. The sales returns and allowances reserve as of December 31, 2009 was 1.9% of gross sales based on a rolling twelve month average.

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Results of Operations

Consolidated Statements of Operations Data:
(dollars in thousands)

	Years Ended December 31,				
	2009	Percent Change	2008	Percent Change	2007
Net revenues, by product:					
Automotive glass	$ 16,040	(17)%	$ 19,298	28%	$ 15,113
Electronic display	364	(30)	523	(80)	2,674
Architectural	6,353	-	6,358	7	5,957
Window film	9,346	(40)	15,691	12	13,989
Other	-	(100)	50	nm*	-
Total net revenues	32,103	(23)	41,920	11	37,733
Cost of revenues	17,704	(27)	24,378	2	23,907
Gross profit	14,399	(18)	17,542	27	13,826
Operating expenses:					
Research and development	2,874	(4)	2,996	(33)	4,505
Selling, general and administrative	8,037	(2)	8,199	(17)	9,843
Restructuring (recoveries) expenses, net	(56)	-	-	(100)	56
Contract termination settlement	-	-	-	(100)	(2,959)
Recoveries for long-lived assets, net	-	-	-	(100)	(32)
Total operating expenses	10,855	(3)	11,195	(2)	11,413
Income from operations	3,544	(44)	6,347	163	2,413
Interest expense, net	(570)	(3)	(586)	(15)	(692)
Other income (expense), net	2,844	nm*	(62)	nm*	2,346
Income before provision for income taxes	5,818	2	5,699	40	4,067
Provision for income taxes	154	(70)	511	nm*	510
Net income	5,664	9	5,188	46	3,557
Deemed dividend on preferred stock	489	-	489	-	489
Net income attributable to common stockholders	$ 5,175	10	$ 4,699	53	$ 3,068

* not meaningful

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The following table sets forth our results of operations expressed as a percentage of total revenues:

	Year Ended December 31,		
	2009	2008	2007
Net Revenues:			
Automotive glass	50.0%	46.0%	40.0%
Electronic display	1.1	1.3	7.1
Architectural	19.8	15.2	15.8
Window film	29.1	37.4	37.1
Other	-	0.1	-
Total net revenues	100.0	100.0	100.0
Cost of revenues	55.2	58.2	63.4
Gross profit	44.8	41.8	36.6
Research and development	9.0	7.1	11.9
Selling, general and administrative	25.0	19.6	26.1
Restructuring (recoveries) expenses, net	(0.2)		