Resins Roundtable: Suppliers Share Their Thoughts on Key Trends and Issues

Key trends for resin manufacturers in 2007 include supply and demand and innovation. Forces that come into play on the paint and coatings sector also, of course, directly influence the resin market. The slow down in the U.S. housing market, continued regulatory pressures around the globe, and tight availability for some raw materials are the leading issues this year. Innovation in resin technology will be necessary for success in the future.

Overall, 2006 was a good year for the U.S. paint and coatings industry, which experienced volume growth of 2.2% and value growth of 8.4% over 2005, according to The ChemQuest Group. "The above historical average growth was accompanied by a return of gross margins to near normal levels, as raw material prices stabilized somewhat and producers were able to pass on earlier price increases and improve production efficiency," notes company president and CEO, Dan Murad. Resin manufacturers benefited from these positive conditions.

The strong growth is not expected to be maintained in 2007, however, due to weakened economic conditions and a slowing in the housing and transportation sectors. The continued movement of wood, furniture, and metal manufacturing operations offshore will further impact the OEM sector. The rate of value growth for special purpose coatings will also decrease as few price increases are passed on. These changes will be felt by resin producers as well.

Regulation of volatile organic compounds (VOCs) will not abate in the future, and the switch to "greener" coatings formulations will require resin manufacturers to develop new technologies that provide improved performance. Shortages of some raw materials may have a significant affect on the resin market as well. Tightness in methanol could affect vinyl acetate monomer, for example, where capacities are already running at 96%, according to Murad. Acrylic resins, too, which experienced shortages in 2004/2005, are again fairly balanced in terms of supply and demand, but that balance could be tipped quickly by demand increases.

How are resin producers responding to these conditions? JCT CoatingsTech spoke to several manufacturers to ask just this question and more. Their responses are presented below. Contingencies were provided by:

- Air Products Polymers—Diane Terry, coatings market manager
- BASF Corp.—Maria Pechard, business manager, Architectural Coatings Raw Materials
- Cook Composites and Polymers (CCP)—Dennis Pyer, product manager, Coatings and Powder Resins in the Polymers Division
- CVC Specialty Chemicals, Inc.—John Cech, general manager and president of the Thermoset Resin Formulators Association (TRPA)
- Cytec—Bud Equi, global marketing manager, Liquid Coating Resins; and Terry Scoville, global marketing manager, Liquid Coating Resins
- DSM Neorexis—Gail Pollanno, coatings market manager
- Elion—Steve Wilson, marketing manager, Coatings Division
- EPS/CCA—Henny Bunch, business director
- Etron Chemical—Nader Arang, business development manager
- Naples Resins LLC—Sanjay Luthra, business manager, Industrial Materials—The Americas
- Rhodia—Chad Waldschmidt, North American business director, polyesters business unit
- Rohm and Haas Company—J.R. "Butsy" Johnson III, marketing manager, Architectural Binders, Paint, and Coatings Materials
- North America; and Shraw Singhal, marketing manager for Industrial Coatings and Traffic Markings, North America

JCT: What are the top issues that face coatings resin producers today, and why?

S. Luthra, Naples: The top three issues facing coatings resin producers today are slow growth in a mature market, paint company consolidation, and raw material volatility. These factors have put incredible pressure on sustainability and profitability as the customer base has shrunken, raw material prices have gone up, supply shortages have become more common, and supply-exceeding demand has put downward pressure on sale prices.

B. Equi, Cytec: There are numerous VOCs facing resin producers and coatings comprises this year against the backdrop of projected slow economic growth. This combination is creating significant turbulence. Customers in highly competitive markets are asking us to help them reduce the total coating cost, even while the chemical feedstock costs are highly volatile. Customers in growth markets are looking for support on existing products and timely new innovations. Meanwhile, regulatory pressure in all regions of the world is forcing the development of new technology, and the adoption of new products that reduce the impact on workers, end-users, and the environment.

J. Cech, CVC: Reliability of supply has been the prevailing concern for most resin manufacturers for the past three years. This challenge is occurring during a time when demand has grown significantly. Uncontrolled raw material cost increases, triggered by hikes in crude prices and tightness in supply, are further exacerbating the situation. Regulatory initiatives such as the EU's registration, evaluation, and authorization of chemicals (REACH) legislation and the high production volume (HPV) program in the U.S. also create an atmosphere of uncertainty regarding the future of many chemicals. It could certainly be the case that some important materials will be discontinued because it would not be economical to use them.

G. Pollanno, DSM: Environmental regulation is the top issue. Allowable limits for VOCs are constantly decreasing. In addition, different parts of North America have different VOC requirements. Developing products that comply with these varying regulations and still meet the high performance levels demanded by our customers is the issue.

A second key concern is the workforce. The coatings industry is a mature industry and a good percentage of the workforce is represented by "baby boomers," and many of them will be retiring within the next decade. There are good universities for polymer chemists, but are there enough young people to replace them? I think we can still expect people to wear many different hats in the future.

S. Wilson, Elionem: Non-uniformity between legislative environmental groups is a key issue for resin manufacturers. Resins developed to serve one regional group may not meet the requirements in another group. As a result, it can be necessary to develop numerous products in order to comply with varying regulations. This can add significant cost.
Key trends for resin manufacturers in 2007 include supply and demand dynamics, forces that come into play on the paint and coating sectors. Suppliers are reporting that market conditions are influenced by the current year's new resin technologies that provide improved performance. Shortages of some raw materials may have a significant impact on the resin market as well. Tightness in methanol could affect vinyl acetate monomers, for example, where capacities are already running at 96%, according to Mural. Acrylic resins, too, which experienced shortages in 2004/2005, are again fairly balanced in terms of supply and demand, but that balance could be tipped quickly if demand increases.

How are resin producers responding to these conditions? ICT Coatingstech spoke to several manufacturers to ask just this question and more. Their responses are presented below. Conditions were provided:

- Air Products Polymers—Diane Terry, coatings market manager, BASF Corp.
- Baxan—Marlo Pechaud, business manager, Architectural Coatings Materials
- Covington & Polymers—Dennis Pryor, product manager, Coatings and Powder Resins (in the Polymers Division)
- CVC Specialty Chemicals, Inc.—John Cech, general manager and president of the Thermoset Resin Formulators Association, TRFA
- Cytex—Bud Eti, global marketing manager, Liquid Coating Resins; and Terry Sclove, global marketing manager, Liquid Coating Resins
- Dow Chemical’s UCAR Epoxy Systems’ Latex Business—Graves, North American coatings market manager
- DSM Neorez—Gail Pollan, coatings market manager
- Elipsoid—Steve Wilson, marketing manager, Coatings Division
- EPS/CCA—Henry Bunch, business director
- Etron Chemicals—Nader Arang, business development manager
- Rhodia—Chad Widmer, North American business director, polycrystalline business unit, Rhodia’s organics enterprise, and Ken Bourlier, market development specialist in the same group
- Rehm and Haas Company—J.R. "Rusty" Johnson III, marketing manager, Architectural Binders, Paint, and Coatings Materials
- North America; and Shrinu Sinha, marketing manager for Industrial Coatings and Traffic Markings, North America

ICT: What are the top issues that face coatings resin producers today, and why?

S. Luthra, Naples: The top three issues facing coatings resin producers today are slow growth in a mature market, paint company consolidation, and raw material volatility. These factors have put incredible pressure on sustainability and profitability as the customer base has shrunk, raw material prices have gone up, supply shortages have become more common, and supply-demand excessing has put downward pressure on sale prices.

R. Eti, Cytex: There are numerous issues that affect resin producers and coatings companies this year against the backdrop of projected slow economic growth. This combination is creating significant turbulence. Customers in highly competitive markets are asking us to help them reduce the total coating cost, even while the chemical feedstock costs are highly volatile. Customers in growth markets are looking for support on existing products and timely new advancements. Meanwhile, regulatory pressure in all regions of the world is forcing the development of new technology, and the adoption of new products that reduce the impact on workers, end-users, and the environment.

J. Cech, CVC: Reliability of supply has been the prevailing concern for most resin manufacturers for the past three years. This challenge is occurring during a time when demand has grown significantly. Uncontrolled raw material cost increases, triggered by hikes in crude prices and tightness in supply, are further exacerbating the situation. Regulatory initiatives such as the EU’s registration, evaluation, and authorization of chemical substances (REACH) legislation and the high production volume (HPV) program in the U.S. also create an atmosphere of uncertainty regarding the future of many chemicals. It could certainly be the case that some important materials will be discontinued because it would not be economical to use them.

G. Pollan, DSM: Environmental regulations is the top issue. Allowable limits for VOCs are constantly decreasing. In addition, different parts of North America have different VOC requirements. Developing products that comply with these varying regulations and still meet the high performance levels demanded by our customers is the issue.

A second key concern is the workforce. The coatings industry is a mature industry and a good percentage of the workforce is represented by “baby boomers,” and many of them will be retiring within the next decade. There are good universities for polymer chemists, but are there enough young people to replace them? I think we can still expect people to wear many different hats in the future.

S. Wilson, Elipsoid: Non-uniformity between legislative environmental groups is a key issue for resin manufacturers. Resins developed to serve one regional group may not meet the requirements in another group. As a result, it can be necessary to develop numerous products in order to comply with varying regulations. This can add significant cost.
M. Pashaii, BASF: BASF sees VOC regulations and industry consolidation as the two largest challenges. With different regulations in effect across the U.S., paint companies may have to produce multiple products for sale across the nation. Add to this the fact that many U.S. based companies that have worldwide sales and are trying to formulate coatings for all regions of the world.

Further, the U.S. and American industry has experienced considerable consolidation over the past 20 years, with large national manufacturers taking over medium-sized regional accounts. This results in fewer companies to form a unified voice to argue against the tightening regulations or push innovative products forward to market.

H. Bunch, EPS/CCA: Coatings industry consolidation is producing key issues in addition to regulatory compliance and raw material cost escalation. The change forces are creating opportunities and risks at the same time, and it is a concern for our members. On the consolidation front, national coatings companies continue to acquire regional producers. World economic conditions will continue to fluctuate, with supply and demand imbalances, geopolitical risks, and ultimately, cost increases in the downstream chemical and coatings markets. We have seen this trend for several years now and it continues to be a major factor in our industry.

J. R. Johnson, Bueh and Haas: Growth in Asia dominates home building and commercial construction. While it is not so much that producers here are shipping to Asia and shorting their domestic customers, but rather imports from Asia that were a small but important part of the supply chain here have dropped off. This presents pressure on domestic producers to expand their product lines.

J. R. Johnson, Bueh and Haas: Growth will be achieved by moving technology to the next level of performance at a reasonable selling price/formulated cost to the paint customer. Over the next five years, development of alternate thinners to oil and solvent-based building blocks for acrylic and vinyl acrylic binders will be critical. Overall, the industry has to maintain profitability in an ever-increasing competitive climate.

D. Rye, CCP: Obviously, VOC regulations can have both a threat and an opportunity. Companies that provide the resources and commitment to meeting the VOC challenges will become successful and in achieving good growth in the coming years. This trend will continue as regulatory bodies continue to drive down VOC levels. As VOC regulations drive the marketplace, technical efforts will need to focus on maintaining performance at reasonable cost levels, particularly when threatened by overseas competition.

J. Claverton, Dow: For architectural coatings, the challenge today involves developing the development of non-VOC resins without sacrificing performance. To achieve lower VOC formulations, in architectural paints and coatings, formulators often have to sacrifice performance and environmental benefits. Resin and latex emulsion developers are being called upon to develop new products that provide lower VOC levels. This will mean to meet customer and industry demand for low or no-VOC formulations driving a large percentage of industry R&D efforts.

J. R. Johnson, Bueh and Haas: Growth in these various challenging conditions, a critical issue becomes how to balance growth, margins, health of the business, formulated costs, etc. Businesses operating profitably in other regions such as China and Europe are also important, and requires careful planning with regard to establishing appropriate plants, the supply chain, and sales, marketing, and technical organizations.

As the industry makes its transition to a sustainable way of doing business, the challenge is to address these issues in a sustainable way, respecting the environment and our impact on it.

What are the main drivers for coating resins growth in the next five years? What about over the next five years? J. Gech, CVC: There is no question that growth in Asia dominates home building and commercial construction. While it is not so much that producers here are shipping to Asia and shorting their domestic customers, but rather imports from Asia that were a small but important part of the supply chain here have dropped off. This presents pressure on domestic producers to expand their product lines. In some cases, this goal is not feasible in the short term as many plants are running flat out already. Announced expansions over the next three years will help ease the tightening of the market, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.

T. Scurry, Cytec: We will see more attention paid to environmental pressures, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.

G. Clayton, Dow: For architectural coatings, the challenge today involves developing the development of non-VOC resins without sacrificing performance. To achieve lower VOC formulations, in architectural paints and coatings, formulators often have to sacrifice performance and environmental benefits. Resin and latex emulsion developers are being called upon to develop new products that provide lower VOC levels. This will mean to meet customer and industry demand for low or no-VOC formulations driving a large percentage of industry R&D efforts.

J. R. Johnson, Bueh and Haas: Growth in these various challenging conditions, a critical issue becomes how to balance growth, margins, health of the business, formulated costs, etc. Businesses operating profitably in other regions such as China and Europe are also important, and requires careful planning with regard to establishing appropriate plants, the supply chain, and sales, marketing, and technical organizations.

As the industry makes its transition to a sustainable way of doing business, the challenge is to address these issues in a sustainable way, respecting the environment and our impact on it.

Multinational producers are transferring their technologies and know-how to locations in Southeast Asia. Emerging markets in Asia can provide significant leaf-figging from conventional technologies to state-of-the-art technologies, bypassing the two or three evolutionary steps that limited the world took in the last two decades.

H. Bunch, EPS/CCA: With minimal industry growth projected in the U.S., generating significant profits will require expanding share or pursuing faster growing international markets. Technology advantages will be the differentiator for those wishing to increase market share in the U.S., and that will be true in the short term and over the next five years.

J. R. Johnson, Bueh and Haas: Growth will be achieved by moving technology to the next level of performance at a reasonable selling price/formulated cost to the paint customer. Over the next five years, development of alternate thinners to oil and solvent-based building blocks for acrylic and vinyl acrylic binders will be critical. Overall, the industry has to maintain profitability in an ever-increasing competitive climate.

D. Rye, CCP: Obviously, VOC regulations can have both a threat and an opportunity. Companies that provide the resources and commitment to meeting the VOC challenges will become successful and in achieving good growth in the coming years. This trend will continue as regulatory bodies continue to drive down VOC levels. As VOC regulations drive the marketplace, technical efforts will need to focus on maintaining performance at reasonable cost levels, particularly when threatened by overseas competition.

G. Clayton, Dow: For architectural coatings, the challenge today involves developing the development of non-VOC resins without sacrificing performance. To achieve lower VOC formulations, in architectural paints and coatings, formulators often have to sacrifice performance and environmental benefits. Resin and latex emulsion developers are being called upon to develop new products that provide lower VOC levels. This will mean to meet customer and industry demand for low or no-VOC formulations driving a large percentage of industry R&D efforts.

What are the main drivers for coating resins growth in the next five years? What about over the next five years? J. Gech, CVC: There is no question that growth in Asia dominates home building and commercial construction. While it is not so much that producers here are shipping to Asia and shorting their domestic customers, but rather imports from Asia that were a small but important part of the supply chain here have dropped off. This presents pressure on domestic producers to expand their product lines. In some cases, this goal is not feasible in the short term as many plants are running flat out already. Announced expansions over the next three years will help ease the tightening of the market, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.

T. Scurry, Cytec: We will see more attention paid to environmental pressures, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.

What are the main drivers for coating resins growth in the next five years? What about over the next five years? J. Gech, CVC: There is no question that growth in Asia dominates home building and commercial construction. While it is not so much that producers here are shipping to Asia and shorting their domestic customers, but rather imports from Asia that were a small but important part of the supply chain here have dropped off. This presents pressure on domestic producers to expand their product lines. In some cases, this goal is not feasible in the short term as many plants are running flat out already. Announced expansions over the next three years will help ease the tightening of the market, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.

T. Scurry, Cytec: We will see more attention paid to environmental pressures, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.

What are the main drivers for coating resins growth in the next five years? What about over the next five years? J. Gech, CVC: There is no question that growth in Asia dominates home building and commercial construction. While it is not so much that producers here are shipping to Asia and shorting their domestic customers, but rather imports from Asia that were a small but important part of the supply chain here have dropped off. This presents pressure on domestic producers to expand their product lines. In some cases, this goal is not feasible in the short term as many plants are running flat out already. Announced expansions over the next three years will help ease the tightening of the market, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.

T. Scurry, Cytec: We will see more attention paid to environmental pressures, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.

What are the main drivers for coating resins growth in the next five years? What about over the next five years? J. Gech, CVC: There is no question that growth in Asia dominates home building and commercial construction. While it is not so much that producers here are shipping to Asia and shorting their domestic customers, but rather imports from Asia that were a small but important part of the supply chain here have dropped off. This presents pressure on domestic producers to expand their product lines. In some cases, this goal is not feasible in the short term as many plants are running flat out already. Announced expansions over the next three years will help ease the tightening of the market, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.

T. Scurry, Cytec: We will see more attention paid to environmental pressures, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.

What are the main drivers for coating resins growth in the next five years? What about over the next five years? J. Gech, CVC: There is no question that growth in Asia dominates home building and commercial construction. While it is not so much that producers here are shipping to Asia and shorting their domestic customers, but rather imports from Asia that were a small but important part of the supply chain here have dropped off. This presents pressure on domestic producers to expand their product lines. In some cases, this goal is not feasible in the short term as many plants are running flat out already. Announced expansions over the next three years will help ease the tightening of the market, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.

T. Scurry, Cytec: We will see more attention paid to environmental pressures, but it is difficult to gauge the impact that Asia will have going forward, so there is some level of uncertainty about how much and how soon these expansions need to be.
What are the main drivers for coating resins growth in the next five years?

1. Chem, CVC: There is no question that growth in Asia dominates both domestic and European demand. It is not so much that producers here are shipping to Asia and shorting their domestic customers, but rather imports from Asia that were a small but important part of the supply chain here have dropped off. This pressure from dominant producers to expand their production. In some cases, this goal is not feasible in the short term as many plants are running flat out already. Announced expansions over the next three years will help ease the tighter supply, but the high cost of low VOC resins without sacrificing performance will be a major factor in their success.

2. Scott, Cytec: We will see more attention paid to environmental benefits, but it is still difficult to have a unified voice and message, such as through the National Paint and Coatings Association (NPCA). We must get together to have a consistent message.

3. Dellamio, DSM: The perspective of the European business is that some of the stricter VOC regulations will be passed in the next five years. As VOCs go lower, more solvent-based products will be displaced by waterborne resins, providing a strong incentive to move towards more sustainable products.

What are the main drivers for coating resins growth in the next five years?

1. Tech, CVC: There is no question that growth in Asia dominates both domestic and European demand. It is not so much that producers here are shipping to Asia and shorting their domestic customers, but rather imports from Asia that were a small but important part of the supply chain here have dropped off. This pressure from dominant producers to expand their production. In some cases, this goal is not feasible in the short term as many plants are running flat out already. Announced expansions over the next three years will help ease the tighter supply, but the high cost of low VOC resins without sacrificing performance will be a major factor in their success.

2. Scott, Cytec: We will see more attention paid to environmental benefits, but it is still difficult to have a unified voice and message, such as through the National Paint and Coatings Association (NPCA). We must get together to have a consistent message.

3. Dellamio, DSM: The perspective of the European business is that some of the stricter VOC regulations will be passed in the next five years. As VOCs go lower, more solvent-based products will be displaced by waterborne resins, providing a strong incentive to move towards more sustainable products.

Multiphase productions are transferring their technologies and know-how to locations in Southeast Asia. Emerging markets in China, India and Brazil will be the new production centers.

What are the main drivers for coating resins growth in the next five years?

1. Tech, CVC: There is no question that growth in Asia dominates both domestic and European demand. It is not so much that producers here are shipping to Asia and shorting their domestic customers, but rather imports from Asia that were a small but important part of the supply chain here have dropped off. This pressure from dominant producers to expand their production. In some cases, this goal is not feasible in the short term as many plants are running flat out already. Announced expansions over the next three years will help ease the tighter supply, but the high cost of low VOC resins without sacrificing performance will be a major factor in their success.

2. Scott, Cytec: We will see more attention paid to environmental benefits, but it is still difficult to have a unified voice and message, such as through the National Paint and Coatings Association (NPCA). We must get together to have a consistent message.

3. Dellamio, DSM: The perspective of the European business is that some of the stricter VOC regulations will be passed in the next five years. As VOCs go lower, more solvent-based products will be displaced by waterborne resins, providing a strong incentive to move towards more sustainable products.
The great success stories of today’s well-known companies are based on innovation and the willingness to spend the time looking for new and better solutions to old problems. Over 40% of sales today are from products we were not producing 10 years ago.

Balance allows participation in a higher share of the market.

H. Bunsh, EPS/CCA: Companies need to invest in the development of new technologies that advance the performance capabilities of ar- chitectural and industrial coatings. It is also imperative to operate efficient manufacturing facilities that are geographically positioned to effec- tively supply a national or international basis in order to deliver low cost and superior service.

J. Cech, CVC: Resin manufactur- ers must develop strong partnerships with customers and suppliers in or- der to provide enough information and support to meet their short-term requirements. They must also stay active and informed about new regu- lations and supply issues through participation in trade associations. Better decisions can only be made by staying ahead of the curve rather than reacting after change has al- ready occurred.

S. Ludna, Nexus: Coatings compa- nies are finding new markets globally for existing products, and following their current cus- tomers around the world. They are also leveraging their operational, marketing, raw material sourcing, and technical expertise to develop competitive advantage in focus seg- ments. The successful coatings com- panies are also focused on organic growth as well as mergers and ac- quisitions to create a larger market share, realizing operational efficien- cies and inheriting successful tech- nologies and brand names. Success- ful resin manufacturers will work closely with coatings producers to implement these strategies.

X: What specifically is your com- pany’s strategy in the short and longer term?

N. Arang, Jotun: Innovation is our key to success, and innovation along the “green” lines will be the theme. It is time consuming, but re- warding. We also plan to expand through organic growth. We have to continually analyze our know-how, and attempt to find new markets based on core strengths. The UV market is one example. We have de- veloped UV resins [macromers] that are applied via conventional applica- tion equipment, allowing the cus- tomer to upgrade to a UV technolo- gy platform without major changes in capital equipment.

K. Bewley, Rhodia: Companies need to develop focused R&D ob- jectives, with R&D work closely aligned with specific market needs. By incorporating efficient project management techniques, companies can develop a fast tracking market for new product introductions while increasing the probability of success. Both of these factors maxi- mize R&D investment returns, which eventually carry through to the bottom line.

S. Wilton, Elkem: Basically, our company strategy is continued de- velopment in specialty niche latex technologies. Regarding VOC legis- lation, we are working hard to de- velop new resins to assist paint manufacturers. We see regulations as an opportunity to develop new resins for various applications, such as for porch and floor coatings, low-VOC horizontal concrete coatings, and swimming pool paints. The more we improve our knowledge and understanding of the properties and behaviors of low-VOC coatings, the better prepared we will be to develop new resins.

G. Palma, DSM: Our short-term strategy is to continue to develop new environmentally friendly, high performance resins for the coatings market. Our long-term strategy is obviously to be a leading supplier to our customers.

B. Li, Zeron: Our strategy is to deliver innovative technologies, timed to our customers’ market needs, which will enable them to respond to both economic and reg- ulator growth opportunities. We will continue to work closely with our customers to understand their needs and market trends. The use of short-term and long-term R&D in- vestments. Our resin platforms of liquid, UV/EB-curable, powder, and specialty additives provide the tools to deliver a wide array of new solutions for the regulatory chal- lenges facing our customers and end-users.

J. Cech, CVC: CVC has taken the position for many years that to con- tinue to grow and prosper, new products and new applications for existing products are critical. Tech- nology changes, regulatory pres- sures, and simple obsolescence can turn a mature product sales. New products and applications keep companies growing. The great success in new products for the known companies are based on in- novation and the willingness to spend the time looking for new and better solutions to old problems. Over 40% of our sales today are from products we were not produc- ing 10 years ago.

H. Bunsh, EPS/CCA: We are in- vesting in the development of new technology, building efficient oper- ating facilities geographically posi- tioned to provide excellent service to the North American and interna- tional markets.

G. Clayton, Dow: Dow UCAR Emulsions Systems will continue to focus on developing new technologies and products to meet our customers’ needs and on significant industry trends, such as demand for low- and no-VOC for- mulations. We will continue to ex- pand our very diverse product line and offer formulations many differ- ent chemistries and new technolo- gies—enabling them to better meet the specific needs of their cus- tomers. New chemistries and tech- nology platforms include those that focus on application specific areas such as dirt-pick-up-resistance.

M. Pichault, BASF: BASF strategy remains unchanged. We will con- tinue to develop new products and technologies that meet the VOC require- ments of the pending regulations while maintaining the desired perfor- mance. Since BASF is a global company, we review the changing global regulations and ensure that our products can be used everywhere.

J.R. Johnson, Rohm and Haas: We will utilize new technology to drive the cost performance for our resins and coatings to a new higher level that meets the end users’ expressed needs, and continue our influence programs in the Paint Quality Institute (PQI) to drive the quality message as well as further development of strong relationships with key companies. Longer term, we will look for new technologies that will differentiate Rohm and Haas from other suppli- ers, develop alternate lower cost feedstocks to replace those based on oil and natural gas, and seek- biology acquisition opportunities.

Rohm and Haas sees a deeper need to understand and broadly embrace green chemistry. VOC regu- lations are important and we are working very hard to bring the most innovative high performance prod- ucts to market that meet or exceed all regulations, but we are also con- cerned about the total impact we do on the environment. Examples in- clude improving air quality, reducing fuel costs, and having manufacturing plants closer to our customers. We are focused on bringing environmentally advanced, eco- nomical, and sustainable products to market for our customers.

D. Terry, Air Products: The strategy of Air Products Polypropylene is to pro- vide customers with quality prod- ucts at a competitive price. We launched a new high performance low-VOC emulsion for interior appli- cations from flat through gloss. Airflex EF33, at the end of 2006. EF33 expands the amenable market for our viscous ethylene (VAE) technology by providing an acrylate-free option which can be used in a wide range of high quality interior formulations. With our con- tinuing R&D efforts and over 30 years of VAE expertise, we deliver higher performance and are broadening the area where Airflex tech- nology can be utilized.

D. Yer, CCP: CCP’s strategy is to maintain a strong technical focus on alkyl dispersion technology for specialty architectual applications and high-solid polyester, acrylic and rust proofing products for industrial markets. We also have an opportunity to develop new products and formulations to meet new market needs. Longer term, we will look for new technologies that will differentiate CCP from its competitors. In conjuction with its Clay Valley sister company, will focus on new technical efforts on environmentally friendly products worldwide in their efforts to support the large paint and product manufacturers with an international presence. It is CCP and Clay Valley’s goal to provide the same products anywhere on the globe. Keys to suc- cess will include a focused business plan, a strong development pro- gram, utilization of international resources, strong customer relationships and strategic alliances, and a dedication toward innovation.

S. Ludna, Nexus: The resin market is committed to growth in the resins industry and to bringing a sup- plier of solventsborne and water- borne acrylics, alkyl, and polyester resins. We are focused on providing resin solutions that address the short-term and long-term needs of coatings companies and ultimately the customers and end-users they serve. A strong focus on market seg- mentation, along with building col- laborative relationships with key customers is the basic foundation of the business strategy. Being a global company with diverse solventsborne and waterborne resin technologies, presence in several other markets besides coatings resins, as well as in various geographical regions (Europe, North America, South America, Asia, Australia, and New Zealand), and the Newport Lakes Resins to be a value-added coatings supplier.

C. WalzSchmidt, Rhodia: Our strategy is to maintain a reasonable growth rate, with move- ment in the industrial coatings market. We can accomplish this by providing the services where Airflex im- provements and attention to our professional product lines in order to service and expand our existing cus- tomer base. Our existing global network combined with raw material innovation has given us a funda- mentally strong position for strat- egic development. By focusing on maintain- ing and improving our traditional position as a supplier of high qual- ity, environmentally friendly products for our customers, our sales of industrial coatings while ensuring that we are at the forefront in terms of new product development. That is our strategy and Rhodia to nurture its current strong market position while taking advan- tage of sustainable, high value growth opportunities.
The great success stories of today’s well-known companies are based on innovation and the willingness to spend the time looking for new and better solutions to old problems. Over 40% of our sales today are from products we were not producing 10 years ago.

J. Cech, CVC: Resin manufacturers must develop new partnerships with customers and suppliers in order to provide enough innovation suitable for long-term requirements. They must also stay active and informed about new regulations and supply issues through participation in trade shows and other events. Better decisions can only be made by staying ahead of the curve rather than reacting after change has already occurred.

S. Lurth, Nailers: Coatings companies are finding new markets globally for existing products, and they’re following their current customers around the world. They are also leveraging their operational, marketing, and raw material sourcing, and technical expertise to develop competitive advantage in focus segments. The successful coatings companies are also focusing on organic growth as well as mergers and acquisitions to create a larger market share, realizing operational efficiencies and inheriting successful technologies and brand names. Successful resin manufacturers will work closely with coatings producers to implement these strategies.

Jr.: What specifically is your company’s strategy in the short and long term?

N. Asang, Bostik: Innovation is our key to success, and innovation along “green” lines will be the theme. It is time consuming, but rewarding. We also plan to expand into Europe through organic growth. We have to continue our know-how and expertise to find new markets based on core strengths. The UV market is one example. We have developed UV resins (monomers) that are applied via conventional application equipment, allowing the customer to supply a UV technology platform without major changes in capital equipment.

K. Bevan, Rhodia: Companies need to develop focused R&D objectives, with R&D work closely aligned with specific market needs. By incorporating efficient project management techniques, companies can bring new products to market for new product introductions while increasing the probability of success. Both of these factors maximize R&D investment returns, which eventually carry through to the bottom line.

S. Wilton, Eholon: Basically, our competitive strategy is continued development in specialty niche latex technologies. Regarding VOC legislation, we are working hard to develop new resins to assist paint manufacturers. We see regulations as an opportunity to develop new resins for various applications, such as for porch and floor coatings, low-VOC horizontal concrete coatings, and swimming pool paint. The more we improve our knowledge and understanding of the properties and behaviors of low-VOC coatings, the better prepared we will be to develop new resins.

G. Puljama, DSM: Our short-term strategy is to develop new environmentally friendly, high performance resins for the coatings markets. Our long-term strategy is obviously to be a leading supplier to the market.

Jr.: What specifically is your company’s strategy in the short and long term?

N. Asang, Bostik: Innovation is our key to success, and innovation along “green” lines will be the theme. It is time consuming, but rewarding. We also plan to expand into Europe through organic growth. We have to continue our know-how and expertise to find new markets based on core strengths. The UV market is one example. We have developed UV resins (monomers) that are applied via conventional application equipment, allowing the customer to supply a UV technology platform without major changes in capital equipment.

K. Bevan, Rhodia: Companies need to develop focused R&D objectives, with R&D work closely aligned with specific market needs. By incorporating efficient project management techniques, companies can bring new products to market for new product introductions while increasing the probability of success. Both of these factors maximize R&D investment returns, which eventually carry through to the bottom line.

S. Wilton, Eholon: Basically, our competitive strategy is continued development in specialty niche latex technologies. Regarding VOC legislation, we are working hard to develop new resins to assist paint manufacturers. We see regulations as an opportunity to develop new resins for various applications, such as for porch and floor coatings, low-VOC horizontal concrete coatings, and swimming pool paint. The more we improve our knowledge and understanding of the properties and behaviors of low-VOC coatings, the better prepared we will be to develop new resins.

G. Puljama, DSM: Our short-term strategy is to develop new environmentally friendly, high performance resins for the coatings markets. Our long-term strategy is obviously to be a leading supplier to the market.

Jr.: What specifically is your company’s strategy in the short and long term?

N. Asang, Bostik: Innovation is our key to success, and innovation along “green” lines will be the theme. It is time consuming, but rewarding. We also plan to expand into Europe through organic growth. We have to continue our know-how and expertise to find new markets based on core strengths. The UV market is one example. We have developed UV resins (monomers) that are applied via conventional application equipment, allowing the customer to supply a UV technology platform without major changes in capital equipment.

K. Bevan, Rhodia: Companies need to develop focused R&D objectives, with R&D work closely aligned with specific market needs. By incorporating efficient project management techniques, companies can bring new products to market for new product introductions while increasing the probability of success. Both of these factors maximize R&D investment returns, which eventually carry through to the bottom line.

S. Wilton, Eholon: Basically, our competitive strategy is continued development in specialty niche latex technologies. Regarding VOC legislation, we are working hard to develop new resins to assist paint manufacturers. We see regulations as an opportunity to develop new resins for various applications, such as for porch and floor coatings, low-VOC horizontal concrete coatings, and swimming pool paint. The more we improve our knowledge and understanding of the properties and behaviors of low-VOC coatings, the better prepared we will be to develop new resins.

G. Puljama, DSM: Our short-term strategy is to develop new environmentally friendly, high performance resins for the coatings markets. Our long-term strategy is obviously to be a leading supplier to the market.

Jr.: What specifically is your company’s strategy in the short and long term?

N. Asang, Bostik: Innovation is our key to success, and innovation along “green” lines will be the theme. It is time consuming, but rewarding. We also plan to expand into Europe through organic growth. We have to continue our know-how and expertise to find new markets based on core strengths. The UV market is one example. We have developed UV resins (monomers) that are applied via conventional application equipment, allowing the customer to supply a UV technology platform without major changes in capital equipment.

K. Bevan, Rhodia: Companies need to develop focused R&D objectives, with R&D work closely aligned with specific market needs. By incorporating efficient project management techniques, companies can bring new products to market for new product introductions while increasing the probability of success. Both of these factors maximize R&D investment returns, which eventually carry through to the bottom line.

S. Wilton, Eholon: Basically, our competitive strategy is continued development in specialty niche latex technologies. Regarding VOC legislation, we are working hard to develop new resins to assist paint manufacturers. We see regulations as an opportunity to develop new resins for various applications, such as for porch and floor coatings, low-VOC horizontal concrete coatings, and swimming pool paint. The more we improve our knowledge and understanding of the properties and behaviors of low-VOC coatings, the better prepared we will be to develop new resins.

G. Puljama, DSM: Our short-term strategy is to develop new environmentally friendly, high performance resins for the coatings markets. Our long-term strategy is obviously to be a leading supplier to the market.

Jr.: What specifically is your company’s strategy in the short and long term?

N. Asang, Bostik: Innovation is our key to success, and innovation along “green” lines will be the theme. It is time consuming, but rewarding. We also plan to expand into Europe through organic growth. We have to continue our know-how and expertise to find new markets based on core strengths. The UV market is one example. We have developed UV resins (monomers) that are applied via conventional application equipment, allowing the customer to supply a UV technology platform without major changes in capital equipment.

K. Bevan, Rhodia: Companies need to develop focused R&D objectives, with R&D work closely aligned with specific market needs. By incorporating efficient project management techniques, companies can bring new products to market for new product introductions while increasing the probability of success. Both of these factors maximize R&D investment returns, which eventually carry through to the bottom line.

S. Wilton, Eholon: Basically, our competitive strategy is continued development in specialty niche latex technologies. Regarding VOC legislation, we are working hard to develop new resins to assist paint manufacturers. We see regulations as an opportunity to develop new resins for various applications, such as for porch and floor coatings, low-VOC horizontal concrete coatings, and swimming pool paint. The more we improve our knowledge and understanding of the properties and behaviors of low-VOC coatings, the better prepared we will be to develop new resins.

G. Puljama, DSM: Our short-term strategy is to develop new environmentally friendly, high performance resins for the coatings markets. Our long-term strategy is obviously to be a leading supplier to the market.
**RESINS** – Supplier Roundup

- In 2005, Air Products expanded capacity for its VA emulsions in the United States by 65 million wet pounds per year to 250 million wet pounds per year. The expansion, located in Freeport, PA, was designed to meet the growing demand for VA emulsions in the automotive, consumer goods, and paints and coatings markets.

- Acronal Optive 130 is a second generation resin for high gloss applications. It is an acrylic latex and surfactant-free medium oil acid dispersion designed for high heat and soil resistance. This product provides outstanding block resistance with low minimum film temperature as well as improved titanium dioxide utilization (potential reduction of 10-15% TiO2) while maintaining dry and high heat and tint strength. BASF’s third generation multiphase acrylic latex.

- Acronal Optive 350 was developed for high-gloss paints at less than 50 g/L VOC, and offers superior 20-degrees gloss compared to other similar products. It also features dry fast behavior and provides excellent block resistance.

- Acronal Optive 410 was developed for varnishes and stains blocking at less than 100 g/L VOC. According to Pechtscheid, the formulator can formulate without reactive pigments. It has reactive pigments, primers made with Acronal Optive 410 can be made with higher P/V ratio, allowing for more economical primers that are easier to topcoat.

- CVC Specialty Chemicals, Inc. has developed several new technologies in its Maple Shade, NJ, plant. The company is currently looking into a new expansion targeted for 2010, according to John Cech.

- Dow Corning’s EPALLOXY 7200 resin demonstrated great success in high solids primers. The traditional approach of using liquid epoxy resins modified the 510 solids developed for vertical elasticsmear paints with less than 50 g/L VOC and gives freeze-dwell resistance. Due to its low N₅₉, Dow Corning’s Optive 510 can be used in most climates.

- In February 2006, Dow UCAR Emulsion Systems started up a next-generation latex factory at its St. Charles, Illinois (Habineville, LA) site. The factory is the first new world-scale latex facility built in North America in over 50 years, according to Claire Swayze. It features a state-of-the-art automated process control system. The resin is designed to be used in specialty niche applications on the processing side, the expansion includes doubling capacity to produce PlastiVoc resins. On the finishing and packaging side, automation investments have been made to standardize the large scale process.

- Dow also introduced EVOCAT® DA 280 and EVOCAT® DA 281, a new promotional program that offers new state-of-the-art epoxies for metal finishing applications.

- Cytec has made plant investment in North America to enable the local manufacture of its RES- 

- DURCOL® water-based acrylates, and MAGLYMID® and MAGLYDUR® water-based high solids acrylates. This investment will enable us to improve service, reduce lead times for the American customers for both current products and new product launches," Bud Equiots.

- New products from Cytec include RESOFLON® RAC 600, a water-based latex hybrid designed for use in high performance, low-VOC architectural high gloss and semi-gloss trim paints. The new resins will help formulators meet California’s South Coast Air Quality Management District (SCAQMD) 50 g/l rules for non-flat paints while maintaining desired performance characteristics.

- RESTOPROL® AP 650S/65AS is a waterborne alkyd dispersion, also launched in 2007, that offers exceptional gloss, low VOC (<400 g/L), and excellent color retention. It provides high temperature resistance. It is also designed for use as a primer for high performance horizontal concrete sealers and paints with high water resistance, low odor, high gloss, and high formation. It is also designed for use as a primer for high performance horizontal concrete sealers and paints with high water resistance, low odor, high gloss, and high formation.

- DSM NeoReins purchased a resin company in China in 2006 and hopes to continue to expand its efforts through the globe, according to Gail Pollano. With regard to new products, the company has introduced new undiluted acrylic hybrid technology for the wood market. These low-VOC products are unique because they allow customers to meet regulatory requirements in these markets but also deliver high gloss and black mark resistance quickly. They are as close as oil-modified urethanes for performance without the VOCs, he adds. DSM NeoReins also offers matte urethanes used to lower the gloss of coatings. They can be easily incorporated into liquid or two-part systems, and do not require any special use of water, nor are they millable in appearance when the coating is dried.

- Elloket is expanding the processing and packaging capability at its Aileen, plant for PlastiVoc Plastov, Plastov and Plastov as part of an effort to continuously grow the North American market. The expansion in specialty niche applications on the processing side, the expansion includes doubling capacity to produce PlastiVoc resins. On the finishing and packaging side, automation investments have been made to standardize the large scale process.

- A New Ventures Department has also been created to fuel profit growth and extend the market scope of the company, according to Steve Wilson. A merger and acquisition team will support this new department in the search for acquisitions in Europe, Asia, and the Americas that will strengthen the company’s operations in those regions, and help it meet its strategic and financial goals. This expansion strategy is the result of a joint effort between the secondary long-term buy-out of the chemical company led by Axa Private Equity. Wilson adds, Axa became a co-owner of the company in October of 2006. New products from Elloket include an all-acrylic latex specifically designed for low-VOC porch and floor applications (PlastiVoc PA9), which offers excellent gloss performance, is a room temperature film former with a low cohesive release requirement, can achieve flat and high gloss finishes, and can be formulated up to 50% VOCs. Designed specifically for elastomeric coatings, PlastiVoc EL25 offers excellent tensile/elongation properties, dries quickly, has low temperature flexibility, adhesion to concrete and masonry, and crack bridging. PlastiVOC FM01, another all-acrylic latex, provides high performance horizontal concrete sealers and paints with high water resistance, low odor, high gloss, and high formation. It is also designed for use as a primer for high performance horizontal concrete sealers and paints with high water resistance, low odor, high gloss, and high formation.

- Incremental investments in EPS/CCA's operating facilities include an expansion at a company's primary research laboratory near Chicago in order to broaden its technology development capabilities in the area of inorganic technology.

- New products from EPS/CCA include EPS-2291, an acrylic resin that acts as a clear sealer for stone, exposed aggregate, stamped concrete, stucco concrete, and other decorative masonry deck surfaces. This product is essentially Biodegradable, therefore eliminating the primary complaint of contractors who seal a deck and then get a call back the next day when the heat melts and the sealer rolls down the surface. Bunch
• In 2005, Air Products expanded capacity for its VAE emulsions in the United States by 65 million wet pounds per year. The new capacity, equivalent to adding a new reactor, was created using the company's technical expertise and advances in operational innovation and at a fraction of the total cost, of adding a reactor, according to Diane Terry. The company has developed plans for further expansion using the same technology and operational changes at additional sites, and is executing a stagnation.

The latest VAE products from Air Products is Airflex E833 Emulsion, a high-performance, low-VOC product for interior applications from flat through glass. "This product combines excellent scrub resistance with low-VOC formulating capability, and also provides good block resistance, wet and dry adhesion to glossy alkali substrates, good early blister resistance, and it can be formulated through low-VOC applications," Terry explains. The performance of conventional higher Tg acrylic and vinyl acrylic copolymers is compromised when formulating to <500 g/L, but Airflex E833 provides a higher level of performance with low-VOC formulating capability, which allows customers to formulate high-performance paints to meet even the strictest foreseeable regulations." she adds.

• BASF has been very active in developing acrylic latexes to meet the ever-tightening VOC regulations and has numerically increased its portfolio, which has been commercialized over the last five years that meet the current and pending SCACMD regulations throughout 2008, according to Pashchid. Acoral Optive 230 was developed for less than 100 wet flat house paints while maintaining in-can freeze-thaw resistance and offers improved titanium dioxide utilization (potential reduction of 5% TiO2 while maintaining wet and dry hide and tint strength) and outstanding weathering characteristics. Acoral Optive 130 is the second generation acrylic latex for semi-gloss (non-flat) paints ranging front zero g/L to 50 g/L VOC. Due to its unique particle morphology, this product delivers outstanding block resistance with a low minimum film formation temperature as well as improved titanium dioxide utilization (potential reduction of 10-15% TiO2 while maintaining wet and dry hide and tint strength). BASF's third generation multiphase acrylic latex, Acoral Optive 350, was developed for high-gloss paints at less than 50 g/L VOC and offers superior 20-degre gloss compared to other similar products, and also is freeze-thaw stable and provides excellent block resistance.

• CVC Specialty Chemicals, Inc. made several debottlenecking investments at its Maple Shade, NJ, plant. The company is currently looking into a significant expansion targeted for 2009, according to John Cech.

• DuPont’s VCP EPALLOY 7200 resin demonstrated great success in high solids pritner’s. “The traditional approach of using liquid epoxy resins can modify the 510 resin developed for vertical elastomeric paints with less than 50 g/L VOC and gives freeze-thaw resistance. Due to its ‘low viscous’, Acoral Optive 350 is used in most climates.

• Most of the capital improvement projects at Cook Composites and Polymers (CCP) over the last several years have been in the area of expanding capacity in alloy dispersion production. CCP currently produces large volumes of alloy dispersions at two manufacturing sites and has developed a product portfolio that includes several unique technologies and patented compositions, according to Dennis Ryer.

The company has introduced several new acrylic dispersion products over the past two years. Chemplex 8321 is an essentially "O" VOC and surfactant-free medium oil alloy dispersion designed for porch and deck and sail and trim applications and wood stains. Chemplex 821-139 is a low-VOC, surfactant-free short oil acrylic alloy dispersion designed for high gloss top coats and features fast dry, good film integrity, and toughness. Chemplex 821-220 is a surfactant-free, medium oil acrylic dispersion based on acrylic alloy dispersions designed for porch and deck applications that features early water resistance, dirt pickup resistance, and color retention. The company also has several additional products reaching the pilot stage that could be introduced in 2007.

• DSM NeoResins purchased a resin company in China in 2006 and hopes to continue to expand its efforts throughout the globe, according to Gadi Pollano. With regard to new products, the company has introduced new urethane acrylic hybrid technology for the wood market. These low-VOC products are unique because they allow customers to meet regulatory requirements in these markets but also keep high gloss and high temperature resistance. They are as close to oil-modified urethanes than for performance without the VOC,s he asserts. DSM NeoResins also offers matte urethanes used to lower the gloss of coatings. They can be easily incorporated into liquid coatings, do not harden so they can be given a medium gloss in application, and are not milky in appearance after the coating is dried.

• Elloket is expanding the processing and packaging capability at its Akron, OH, plant for Pliolite Ploway. and Pliolite resin as part of an effort to continuously grow the company’s North American business in specialty niche applications. On the processing side, the expansion includes doubling capacity to produce Pliolite resins. On the finishing and packaging side, automation investments have been made to improve the large volume production. A New Ventures Department has also been created to fuel profit growth and extend the market scope of the company, according to Steve Wilson. A mergers and acquisition team will support this new department in the search for acquisitions in Europe, Asia, and the Americas that will strengthen the company’s operations. On the research side, the second major task was to meet its strategic and financial goals. This expansion strategy is the result of an acquisition of the secondary buy-out of the chemical company led by Axa Private Equity." Wilson adds. Axa became the majority holder in October of 2006.

New products from Elloket include an all-acrylic latex specifically designed for low-VOC porch and floor applications (Pliolite PAV), which provides excellent UV resistance, as is a room temperature film former with a low coalescent requirement, can achieve flat and high gloss finishes, and can be formulated under 50 g/L VOCs. Designed specifically for elastomeric coatings, Pliolite EL25 offers excellent tensile/elongation properties, dry pick-up resistance, low temperature flexibility, adhesion to concrete and masonry, and crack bridging. Pliolite PAV01, another all-acrylic latex, provides high performance horizontal concrete sealers and stonest with water blush resistance, early moisture resistance, early salt resistance, extreme low temperature protection, and hot tire pickup resistance.

• Incremental investments in EPS/CCA's operating facilities include an expansion at the company's primary research laboratory near Chicago in order to broaden its technology development capabilities, according to Michael Buirman.

New products from EPS/CCA include an EPS 2291, an acrylic binder that acts as a clear sealer for stone, exposed aggregate, stamped concrete, stucco, brick, and other decorative masonry deck surfaces. This product is essentially 99% dry matter, conforming to the primary complaint of contractors who seal a deck, and then get a call back the next day when overnight moisture turned the sealer milky. Bunch
Notes: Its exceptional adhesion and good chemical resistance also make it ideal for garage floors. The water-based acrylic polymer EPS 2357 is designed for concrete stain formulations and provides the appearance of acid-stained bases. EPS 2507 and EPS 2546 are two additional new acrylic water-based industrial maintenance printers and coatings, offering exceptional adhesion, corrosion resistance, and gloss retention.

Nupec Resins LLC was formed in 2004 by the global divestiture of Akzo Nobel Resins to Nupec. Resins, a New Zealand-based, publicly traded company. "Initial business activity was focused on successful integration and creation of a new company that has a global base with local presence, without disrupting the supply of products and services to its core customers," says Sam Jones. "Subsequently, the focus has been on increased investments in global technology development, transfer of technology, and human resources within the region, and supporting customers in emerging new geographical markets. Currently, the company has several capacity upgrade and expansion plans underway to focus on growth in waterborne technologies and operational efficiency for solventborne resins. Nupec Resins has recently introduced several solventborne and waterborne acrylic resins for use in one-component and two-component coatings for automotive and industrial applications. Sealtux 37-6802 is an acrylic emulsion that can be used as basecoats for automotive refinish and plastic coatings that assist with aluminum flake orientation for metallic basecoats. Sealtux 37-6770 is a one-component, self-crosslinking, acrylic emulsion with gradient morphology that provides the traditional fast drying properties of thermoplastic acrylic emulsions, but with crosslinking functionality that allows for lower amounts of coalescing solvents while increasing film properties such as flexibility, hardness, humidity, chemical, and solvent resistance. Several new generation products of this family are also being introduced for various applications. Nupec has also launched several new solids and waterborne acrylic co-reactants that are being used in two-component polyurethane coatings. Sealtux 27-1397 is an 80% solids hydroxy functional co-reactant that provides low color, excellent gloss and "wet look," superior exterior weathering resistance, chemical resistance, and long-term durability. Sealtux 27-9677 is a 90% solids hydroxy functional acrylic resin that can be used as a reactive diluent and also has excellent pigment-dispersing properties. Sealtux 37-6511 is a waterborne hydroxy functional resin that allows formulation of coatings with VOC content of 100 g/l or lower and possess excellent film properties with outstanding gloss retention and yellowing resistance in interior weathering. New investments in all aspects of its business to meet the global supply/demand balance of its products continue at Rhodia. Recent activities include refining processes to optimize yields in line with global growth demands according to Chad Waldschmidt. "The discipline which we use to identify and execute plant expansions and capital investments has allowed us to address the challenge of rising costs while providing the necessary service to our customers in a cost-effective and manageable way.`

Recently, Rhodia introduced several new waterborne aliphatic isocyanates for use in low-VOC coatings and adhesives applications. Providing user-friendly two-component waterborne urethane products has been a challenging effort, according to Jean Bourlier. "Typically, isocyanates will react with DMA, so developing an isocyanate that can be dispersed in water but still retain its reactivity presents a significant technical hurdle to overcome. The company's EZD 41L, EZM 501, and EZM 902 products are easily incorpo-rated into water without high shear mixing and provide excellent pot life, appearance, and performance properties. These products will provide coatings formulators with a valuable tool to develop low-VOC urethane coatings to meet the strict demands being placed on industrial coatings. Several new acrylic emulsion products have been brought to the market by Rohm and Haas Coatings. Aramite N-200 resin is based on the new Avacone technology platform. It is a high-performance waterborne acrylic binder designed for use in low-VOC industrial maintenance coatings for metal and concrete surfaces can be fog-plied for primers, topcoats, and direct-to-metal applications.

Rhoplex VSB-50 (Versatex Sheen Bright) 100% acrylic emulsion is designed for premium performance, interior and exterior, flat to gloss architectural coatings and is particularly useful in the formulating process to 50 g/l VOC. In addition, it provides outstanding performance in seifiable coatings for commercial and residential substrates. Rhoplex VSB-50 acrylic emulsion provides excellent build and film hardness, household stain removal, abrasive scrub resistance, and excellent alkali resistance.

Rhoplex HG-706 100% acrylic emulsion features crosslinking technology for the formulation of interior and exterior VOC-compliant lacquers, gloss and semigloss enamels. Paints based on Rhoplex HG-706 emulsion have excellent gloss potential, early and ultimate block resistance, alkali adhesion, and stain removal. Rohm and Haas has also introduced two new solvent-free, associative thickeners -- Acrysol RM-3000 and Acrysol RM-6000.

For more information, visit www.computrac.com.