



over 25 years
ALLRESIST

A Business of Excellence

Image brochure

On the way with vision and innovation

The Company

Allresist is an independent and autonomous resist manufacturer which develops, produces and distributes its own products.

Our main customers are predominantly medium-sized electronic circuits and chip manufacturers from various micro electronics and microsystems technology sectors, but also universities and research institutes belong to our clientele.

Located in a company-owned modern facility in Strausberg near Berlin, both standard and customer-specific process-dependent photo- and e-beam resists are produced. Providing in addition a highly specific technology advice, we pick up the customers from the point where our resist expertise is required. From this strategy emerged many long-standing and successful partnerships during the more than 25 years of our existence.





The Roots

The roots of the Allresist know-how go back to the Fotochemische Werke (FCW) Berlin. Although the principal product was x-ray films, the company also produced photo-sensitive resists for microelectronic applications of the former RGW until 1992 in conjunction with research partners like the Academy of Sciences and the Humboldt-University of Berlin.

Together with these partners, the FCW for example successfully developed the first two-layer system for e-beam lithography in the 1980s. This development stimulated the creativity of Matthias Schirmer, at that time a staff member and active participant in the project, who is now the managing director of Allresist.

In 1992, the lights were turned off for the photoresist production at the FCW. To preserve the world-class knowledge of resist technology and to provide a new future for themselves and other committed colleagues, Matthias and Brigitte Schirmer founded the Allresist GmbH on October 16, 1992.



The Development

In the first years, the acquired GDR microelectronics customers secured a significant part of the required turn-over. Additional revenues came from intensive subsidy-supported project activities and the specialization in customized specific products. Due to the innovative strength of the contributing scientists, the range of marketable resists increased to 14 by 1999.

To keep up with the constantly expanding production demands, Allresist invested in Strausberg, and also expanded the research activities with the construction of a new, larger building with modern equipment on own property.

Well positioned in the market with a sustainable business model, the company has more than doubled the product turnover in the past five years and enlarged the production facility in 2013 with an annex. In 2018, we extended our company building again and added activities with 450 m² which increased the production facilities by 150 m². In Strausberg, meanwhile 14 staff members produce manufacture a comprehensive product range more than 250 products (photo- and e-beam resist and associated process chemicals).

Makers with Visions

The founders Brigitte and Matthias Schirmer originally were the sole shareholders of Allresist. Both worked as scientists for the Fotochemische Werke, Matthias Schirmer as research chemist and Brigitte Schirmer as production engineer.

The economic basis for the newly founded company came from an important joint product development which both Schirmers converted in 1991 still in the FCW within only three month from laboratory to industrial production scale.

Together with their former colleagues the Schirmers jointly established their own company. Innovatively designed to meet the demands of the customers and strongly dedicated to a humanistic corporate culture, Allresist literally offers “all resists”. Trained on a regular basis and guided with inspiration, staff members are included in processes and decisions and are invited to participate actively.

Meanwhile, also their daughter Ulrike Schirmer is shareholder and involved in all processes. In 2024, she will become managing director and initiate the succession with the junior research team.



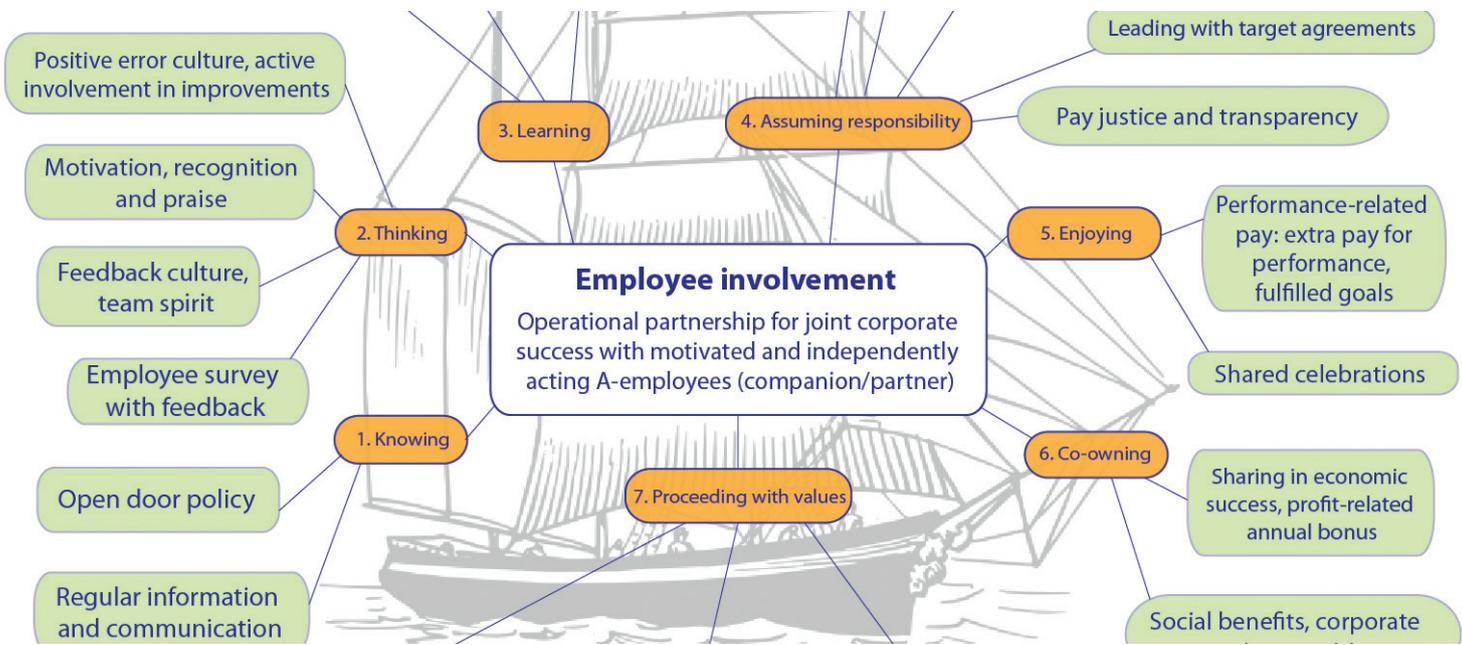
Our Mission Statement

In 2007, the EFQM model found its way into the corporate strategy, a sustainable management model geared to achieve top performances. Based on this model, the team created a far reaching mission statement, which in addition to a clear vision with milestones until 2020 also includes shared basic values and a mission for the customers. Vision and business model result from a thorough analysis of the resist market (roadmap) and the clear understanding of our own core competencies.

Vision: “Allresist is the number one for innovative customer-specific photoresists and a globally established producer of e-beam resists. Our increasing market success is equally based on a team of highly motivated staff members and on excellent customer partnerships.”

Excerpt from our basic values: „We respond promptly and flexibly to customer and market requirements and inspire our customers with competence, creativity, friendliness and qualified service. We support our employees in developing their competence and performance. We also train them comprehensively and let them participate in all decisions and the economic success.“

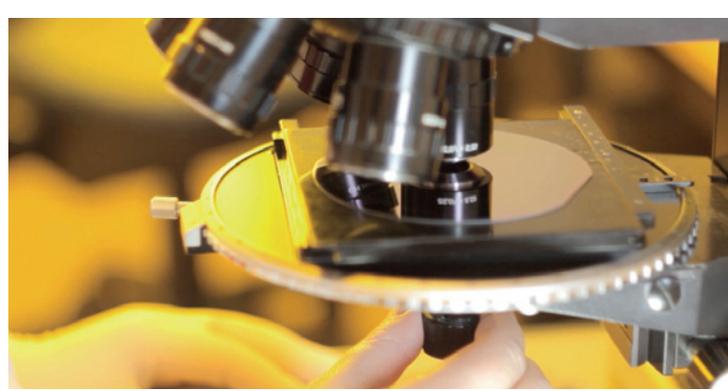




With a situational leadership style, the managers of Allresist succeeded in winning not only the minds, but also the hearts of the employees for the further development of their company.

This was also reflected in the results of the competition “Germany’s Employee Champion 2011” in which all staff members were questioned in detail. We were ranked number 2 (in the category of up to 50 staff members) and gained the coveted seal which stands for optimal employee motivation, high emotional employee loyalty and an attractive employer brand.

The staff members rated their employer as very reliable, innovative, flexible, competent and credible. Allresist set eight benchmarks in this process. Also in internal annual employee surveys, more than 90 % of our employees confirmed highest satisfaction with their company.



The Promise

Excerpt from our mission statement: “We achieve a high level of customer benefit with products of excellent quality, offered at fair prices and manufactured with attention to the environment, and an individually tailored consulting.” In our efforts to create satisfied customers and employees, we establish and maintain personal partnerships for a sustained success. In the spirit of continuous improvement, we develop further as a company of excellence, built on a commitment to performance, sustainability and a humanistic corporate culture. In this respect, we want to be an inspiration and role model for other companies.“

Our customers appreciate the realisation of this promise of Allresist. In the competition “Germany’s Customer Champion“, in which 100 of our customers were questioned in detail in 2010, we were ranked third (in the category of up to 50 staff members).

This award is in recognition of an outstanding customer relationship management and a high degree of customer loyalty. Allresist was able to set five benchmarks in this competition.

The company obtained particularly positive results also reflected in all customer surveys for the high product quality and flexibility, the short delivery times, the individual customer support, and an excellent service.

Of great importance to us is that you – our customers – like to recommend us and are loyal to us in the long run.

The high quality standard of our products is an essential prerequisite for us. Allresist meets this demand with a highly efficient integrated management system according to the new standards. This includes, in addition to a quality management system according to DIN EN ISO 9001, also an environmental management system according to DIN EN ISO 14001.

We are aware that we have a high responsibility towards our customers. Quality and on-time delivery of our products are the prerequisite for your daily production.

to our Customers



ALLRESIST

E-Beam resists

Solvent developer,
positive

Alkaline developer
plasma etching resistant

Copolymer PMMA
MA 33%, highly sensitive

AR-P 617

Highest resolution,
mix & match

AR-N 7500

High resolution,
highest sensitivity

EOS 72: SX AR-P 7200 (CAR)

PMMA 50 k – 950 k,
anisole, chlorobenc., ethyl I.

AR-P 631 - 679

Highest resolution,
highest sensitivity

AR-N 7520, 7520 new

High resolution,
mix & match

AR-P 7400

Copolymer styrene/
chloroacrylate
highest resolution,
high etching resistance

CSAR 62: AR-P 6200

Highest sensitivity,
steep gradation

AR-N 7700 (CAR)

Thermally structurable
Nanofrazor application

Phoenix 81: SX AR-P 8100

High resolution,
flat gradation

AR-N 7720 (CAR)

Extrem etching resistant,
highest resolution

Medusa 82: SX AR-P 8200

Special manufacture

Protective
Coating

Polyimide resists

High etching
stability up
to 40% KOH

AR-PC 503, 504 (0)

Protective coating,
thermally stable
up to 450 °C

SX AR-PC 5000/80

HF-resistant
up to 50% HF

SX AR-PC 5000/40

Patternable PR, ther-
mally stable up to 450 °C

SX AR-P 5000/82

PR: photo resist AR-P: Positive AR-N: Negative AR-U: Reversal resist SX: Special manufacture / Experimental sample

resist landscape

(selection)

Special applications

Conductive top layer
dissipation of elect. charges

Elektra 92, AR-PC 5090, 5091

Temperature-stable
negative PR up to 270 °C

SX AR-N 4340/7

Positive photoresist,
alkali-stable up to pH 13

SX AR-P 5900/4

Positive PR for patterning
with 5 % HF / BOE

AR-P 5910

Fluorescent photo-
and e-beam resists

SX AR-P/N 8500

Photo resists

Spray
application

pos. spray resist
various applic.

AR-P 1200

neg. spray resist
various applic.

AR-N 2200

Standard application,
positive

ICs, 1-2 μm resolution
various applications

AR-P 3500 (T)

VLSICs, sub- μm
steep gradation

AR-P 3700, 3800

High film thickness
values up to 100 μm high
dimensional accuracy

AR-P 3200

Image reversal,
positive or negative

AR-U 4000

Mask applications divided
optics, adhesion enhanced

AR-P 3100

Lift-off,
positive

Single-
layer lift-off

AR-P 5300

Two-
layer lift-off

AR-BR 5400

Standard application,
negative

VLSICs, sub- μm
highest sensitive

AR-N 4340 (CAR)

High film thickness values
up to 100 μm , easy removal

CAR 44: AR-N 4400, 4450

High film thickness values up
to 100 μm , high stable (S),
easy removal (R)

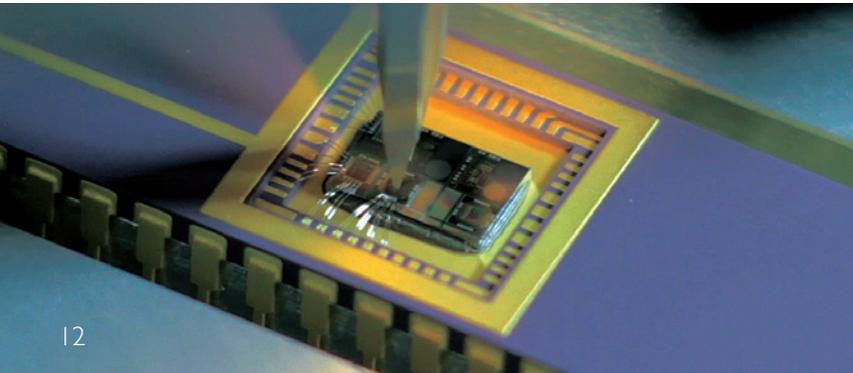
Atlas 46S, R: AR-N 4600; 4650

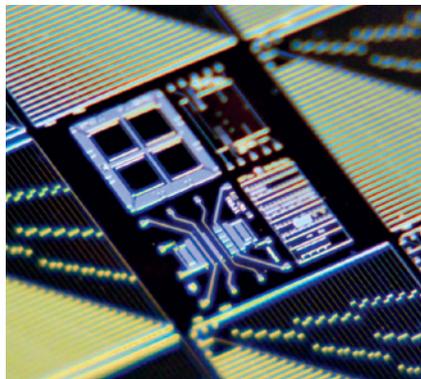
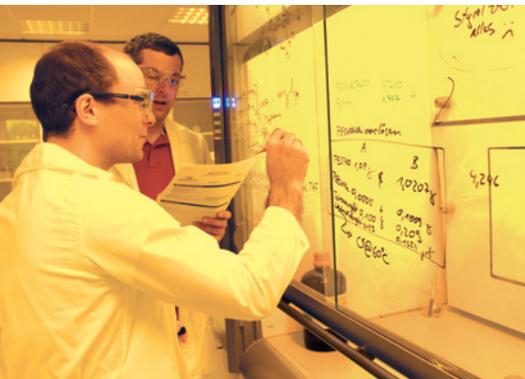
Partnerships

The main focus of the strategy of Allresist are research-related cooperations with customers and research institutes which are aimed at the development of new innovative products. Since the beginning we could, together with our partners, successfully implement this strategy in more than 35 scientific cooperative projects. Our successful partnerships are also documented in many joint presentations at trade fairs and congresses.

We act, due to our particular core competences, as mediator between industry and research and provide access to each other. Many trustful relationships were developed which are based on the principle of mutual benefits, on long-term time frames and on networks.

We have preserved the joy and amazement that comes with discovering the fascinating world of the nanocosmos which we explore during our research activities. Last but not least is it this joy which drives to us to scientific excellence. For this, our customers are an important driving force.





and Innovations

Our unique selling point is the development of resists according to customer specification. With our extensive resist know-how and high flexibility, Allresist is able to manufacture technology-adapted resists cost-efficiently in a very short time.

In addition to our „down-home“ research activities, we also develop innovative products for future technologies like e.g. the e-beam resist CSAR 62 with resolutions of < 10 nm (AR-P 6200) and the conductive coating Electra 92 (AR-PC 5090/91) for the dissipation of process-related electrical charges. Providing maximum resolution and sensitivity, both high-tech resists will give new impetus in the development of electron beam lithography. If CSAR 62 and Electra 92 are used together on insulating substrates, the same small structural size can be achieved.

The thermally structurable Phoenix 81 (developed in 2017) is the only resist worldwide which allows writing structures of about 10 nm with a NanoFrazor (SwissLitho AG). Another new development is the extremely stable negative resist Atlas 46 which is equivalent to SU-8, but allows additional applications due to its extended properties. Probably the greatest success was achieved by Allresist in 2018 with Medusa 82 which has, in contrast to HSQ, a very high process stability and can be adjusted to yield an up to 20 twentyfold higher sensitivity.



The Trust

As a chemical manufacturing company, we are aware of our particular commitment to a healthy environment. The responsible and careful use of resources and the voluntary replacement of environmentally hazardous substances is thus lived politics for us. This is consistently realised with our ambitious environmental management as environmental partner of the state of Brandenburg.

An important goal to reduce our environmental impact was thus the installation of a roof-top photovoltaic system in 2015. Since the new building extension in 2018, we installed in addition to the photovoltaic system also a 300 m² green roof with many different perennials which provides habitat for birds and insects, filters air pollutants and saves energy through an improved thermal insulation of the building. Moreover, the green roof increases the efficiency of the adjacent photovoltaic system which helps prevent about 21 tons of climate-damaging CO₂ emissions every year. Allresist uses a major part of the clean electricity for the production which has doubled since 2013. On the occasion of the inauguration and our 26th anniversary, Brandenburg's former minister of environment Anita Tack (ret.) congratulated and wished Allresist continued sustainable success.

The Responsibility

Allresist recognises its considerable commitment to the society. We want to give back part of our success to society, especially to the region, without forgetting need and poverty in the world. Allresist donates more than 1% of the revenue for people in need as well as for sports and cultural projects.

Allresist financially supports sustainable projects in the region: the “Kindertraeume Strausberg” for educational and recreational activities, cycling in Brandenburg and the “Strausberger Tafel” (by co-financing small transporters). In addition, we regularly donate to “SODI – Fair World” and “Doctors without Borders” to make our contribution against hunger and diseases in the world.

The company supported since 2002 the child welfare organisation “Plan International”, a development organisation to reduce child poverty. Particular close to our heart is our sponsored child Mikerly in Haiti. Due to the financial support of his family, the boy is enabled to attend school. Allresist and also our employees furthermore donate money for the victims of disasters, e.g. in Haiti, Pakistan and Mexico to support homeless people.



The World Market

Allresist has earned a very good reputation worldwide and delivers its products in all continents. One trade mark is also the short delivery time of in-stock standard products. Interested parties and customers will find product descriptions, a detailed resist WIKI and FAQs on our informative and versatile homepage.

The company's export turnover of currently 55% increases constantly. European customers are supplied directly by Allresist, while sales agencies in China, Korea, India, Russia and Israel support the local distribution and open new markets for us. With innovative product developments like CSAR 62, Electra 92, Atlas 46 and Medusa 82, Allresist conquers the world market. With the highest quality and at reasonable prices, we are constantly gaining many new customers. We regularly inform our customers about our state-of-the-art developments in our AR NEWS and at trade fairs and congresses worldwide.

In 2013 and 2015, Allresist brought global top products to market. The high-tech resist CSAR 62 is characterised by excellent resolution, good sensitivity and outstanding plasma etch resistance. Electra 92 is a top layer for e-beam resists which allows to achieve distortion-free nanometer structures on insulating substrates such as glass; due to the dissipation of electrical charges.





The Success

Our philosophy of moderate and steady growth instead of profit maximisation at all costs has contributed to our both economic and social progress. Our motto is, quoting Ulrich Wickert: “Profit and ethics are no contradiction, it only depends on how the profit is made.” For us it is also important “what you make of it“. Following this philosophy, we have the opportunity to implement both true sustainability with all partners and to serve as role model and inspiration for other companies. Allresist thus reached its goal to remain independent and autonomous.

Our successful path to excellence (EFQM) initiated in 2007 was rewarded in 2012 with the Ludwig-Erhard-Prize (Award for Business Success and Ethics). In 2013, we received the Brandenburg Innovation Award with our product innovation CSAR 62 and achieved new record sales. The synthesis of the different polymers used to produce our innovative Electra 92, Atlas 46, Phoenix 81, and Medusa 82 resists required a further significant production expansion in the 26th year of our existence.



The Recognition

Allresist participated in many competitions with the aim to improve continuously, to develop further and to enhance the awareness of the company, and received high ratings:

- Excellent Knowledge Organization: award 2015
- Innovation Prize Brandenburg 2014
- Entrepreneur of the Federal State of Brandenburg 2014
- Ludwig Erhard Prize: award 2009, prize winner 2012
- Germany's Employee Champion: 2nd place 2012
- Germany's Customer Champion: 3rd place 2010
- Quality Award Berlin-Brandenburg: award 2008, prize winner 2010
- Technology Transfer Award of the Technology Foundation Brandenburg 2002 and 2008
- Future Award East Brandenburg 2004

The 8 basic Concepts of Excellence (EFQM)



On this page we would like to introduce you to the eight basic concepts of Excellence. We implemented these concepts which subsequently became the guiding principles for our actions specifically for Allresist in 2007. With this we became successful.

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