



over 25 years
ALLRESIST

A Business of Excellence

Image brochure

On the way with vision and innovation

The Company

Allresist is independent resist manufacturer for microelectronics which develops, produces and distributes own products since 1992.

Our key customers are mostly medium-sized electronic circuit and chip manufacturers from different branches of microelectronics and microsystems technology, but also universities and research institutes in many countries worldwide.

In addition to standard e-beam and photo resists, also process-adapted, customized products are manufactured in an own modern company building in Strausberg near Berlin. We develop many products in close cooperation with customers according to their specific requirements. Combined with highly individual technology consulting, we pick up the customers where they need our resist know-how. From this strategy, many successful long-term partnerships have developed in the more than 25 years of our existence.



The Roots

The know-how of Allresist is rooted in the Fotochemische Werke (FCW) Berlin. Even though their main product was x-ray films, the company also produced light-sensitive resists for the microelectronics sector of the former RGW until 1992. Cooperation partners at that time were the Academy of Sciences and the Humboldt-University of Berlin.

Together with their partners, the FCW among others successfully developed the first two-layer system for e-beam lithography in the 1980s. This development stimulated the creativity of Matthias Schirmer, then active participant in the project and now managing director of Allresist.

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



Makers with Visions

Both Allresist founders worked as natural scientists in the FCW until 1992, Matthias Schirmer as a chemist in the research department and Brigitte Schirmer as engineer in the production. An important joint product development which both Schirmers transferred still at the FCW from the laboratory to industrial production scale in only three months in 1991 became the economic basis for the newly founded company.

Together with their then colleagues and today's employees, the Schirmers jointly established their own company. Innovatively oriented towards the customer and following a humanistic corporate culture, the Allresist literally offers almost "all resists". Regularly trained and guided with inspiration, all Allresist employees are involved in processes and decisions and are invited to participate actively.

With their cooperative management style, the couple succeeded in winning not only the heads, but also the hearts of their employees for the further development of the company. This is mirrored by internal annual employee surveys in which the Allresist staff members report greatest satisfaction.

The Development

During the first years, the acquired FCW customers secured a large part of the annual turn-over; the rest was compensated by intensive subsidy-supported project activities and an increased specialization in customized products. With this innovative strength, the product range increased to 14 marketable resists by 1999.

To keep up with the constantly expanding production demands, Allresist invested in the construction of a new, larger building with modern equipment on own property in Strausberg and also increased its research activities considerably. Company building and production facilities were again extended in 2013 and 2018. Today, 16 employees manufacture a broad range of more than 250 products in Strausberg.

Well positioned in the market and with a sustainable business model, Allresist was able to steadily increase its product sales in the following years. Meanwhile, also daughter Ulrike Schirmer is involved in the business processes and will initiate the succession process with the young research team in 2024 as co-managing director.



Our Mission Statement

In 2007, the EFQM model was added to our corporate strategy – a sustainable management model to achieve top performance. Based on this model, the team created a progressive guiding principle that, in addition to a clear vision with long-term milestones, also includes shared fundamental values and a mission for the customers. Vision and business model result from a thorough analysis of the resist market (road-map) and the understanding of own core competencies.

Vision: “Allresist is the number one for customer-specific photoresists and globally established producer of e-beam resists. We achieve growing market success with enthusiastic employees and excellent customer partnerships.”

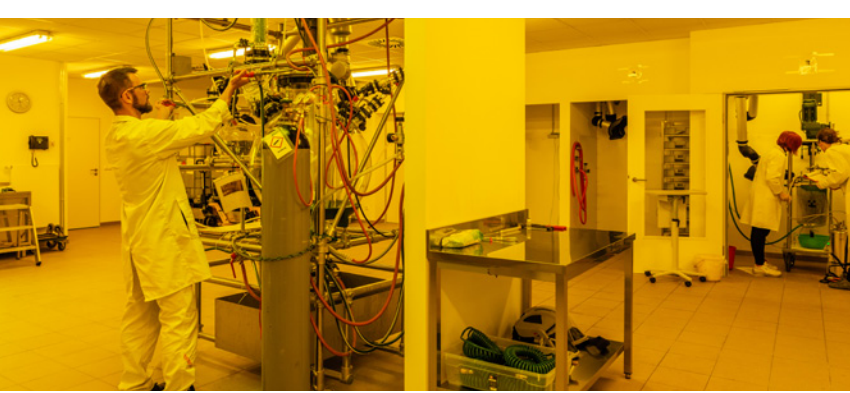
Extract from our fundamental values: “We react promptly and flexibly to customer and market requirements and inspire our customers with competence, creativity, friendliness, and service. We support our employees in developing their competence and performance. They are comprehensively informed, involved in decisions, and participate in the economic success.”



The 8 basic Concepts of Excellence (EFQM)



The diagram shows the eight basic concepts of excellence which we implemented specifically for us in 2007 as guiding principles for our actions. With this concept, we became successful.



The Promise

Extract from our mission statement: “We achieve high customer benefit with products of excellent quality offered at reasonable prices and manufactured with attention to the environment, and an individually tailored consulting.” In our efforts to create satisfied customers and employees, we maintain personal partnerships for sustainable success. In the sense of constant improvement, we continue to develop as a company of excellence which is based on commitment, performance, sustainability, and a humanistic corporate culture. With this strategy, we want to be an inspiration and role model for other companies.”

Allresist receives much recognition from customers for the implementation of this promise. In the „Germany Customer Champions“ competition in which 100 of our customers were interviewed in detail, we reached the 3rd place.

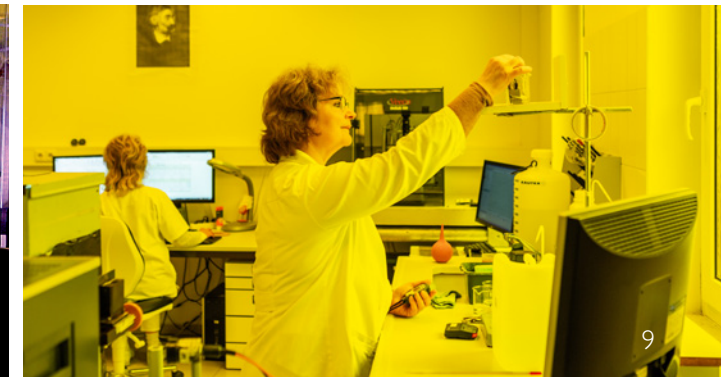
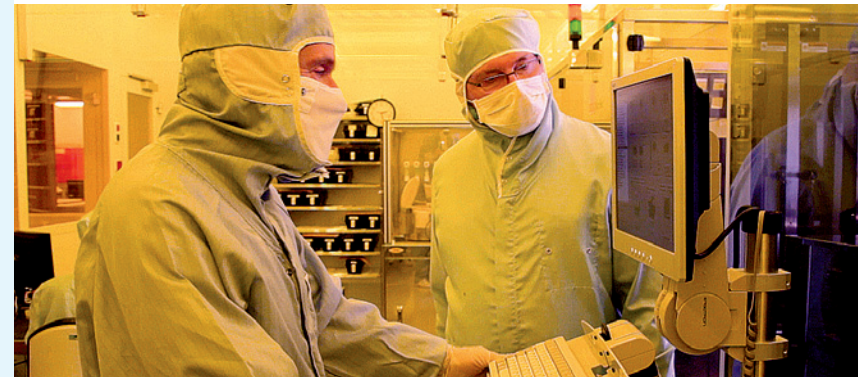
This award stands for outstanding customer relationship management and high customer loyalty. Allresist was able to set five benchmarks in this competition.

Allresist achieves particularly good results in the “Germany’s customer champions” competitions with high product quality, great flexibility, very short delivery times, individual customer advice, and special service. This is also reflected in all our customer surveys.

We ensure this with an effective integrated management system, which in addition to a quality management in accordance with DIN EN ISO 9001 also includes the environmental management in accordance with DIN EN ISO 14001.

We are also aware of the fact that we have a great responsibility for our customers. An on-time delivery of high-quality products with maximum customer service is the prerequisites for their daily production, and we are 100 % committed to achieve this goal. Ultimately we want you, our customers, to be highly satisfied with us, to stay with us in the long run and to recommend us.

to our Customers



ALLRESIST resist landscape

E-Beam resists

Solvent developer,
positive

Copolymer PMMA
MA 33 %, highly sensitive
AR-P 617

PMMA 50 k – 950 k,
anisole, chlorobenc., ethyl l.
AR-P 641 - 679

Copolymer styrene/
chloroacrylate
highest resolution,
high etching resistance
CSAR 62: AR-P 6200

Alkaline developer
plasma etching resistant

Highest resolution,
mix & match
AR-N 7500

Highest resolution,
highest sensitivity
AR-N 7520, 7520 new

Highest sensitivity,
steep gradation
AR-N 7700 (CAR)

High resolution,
flat gradation
AR-N 7720 (CAR)

High resolution,
highest sensitivity
EOS 72: SX AR-P 7200 (CAR)

Thermally structurable
Nanofrazor application
Phoenix 81: SX AR-P 8100

Extrem etching resistant,
highest resolution
Medusa 82: AR-P 8200, 8250

Special manufacture

Protective
Coating

High etching
stability up
to 40 % KOH
AR-PC 504 (0)

HF-resistant
up to 50 % HF
SX AR-PC 5000/41

Polyimide resists

Protective coating,
thermally stable
up to 450 °C
SX AR-PC 5000/80

Patternable PR, ther-
mally stable up to 450 °C
SX AR-P 5000/82

(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

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

High film thickness
values up to 100 µm high
dimensional accuracy
AR-P 3200

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

High film thickness values up
to 100 µm, stable structures
adequate SU-8
Atlas 46 AR-N 4600

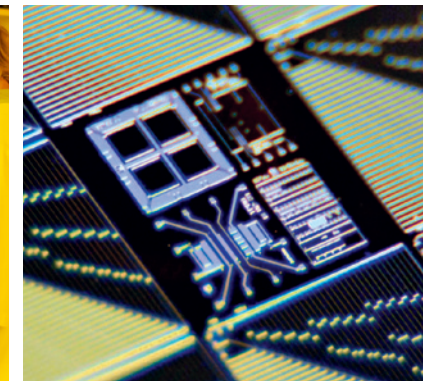
PR: Photo resist AR-P: Positive AR-N: Negative AR-U: Reversal resist SX: Special manufacture / Experimental sample

Partnerships

The strategy of Allresist is focused on research-related collaborations with customers and research institutions to develop new, innovative products. Since the beginning, we have been able to implement this target-oriented strategy in more than 35 scientific cooperation projects. Our successful partnerships are also documented in numerous joint presentations at trade fairs and congresses worldwide.

Due to our special core competencies, we act as an intermediary between industry and research, providing access of potential partner to each other. Many trustful relationships have developed from this concept which is based on the principle of mutual benefit and aimed at long-term relationships and efficient networks.

We nevertheless have retained the joy and amazement at the fascinating world of the nano-cosmos that we explore in our research. Last but not least, it is this joy that promotes scientifically excellent performance, and our customers are an important driving force for this.

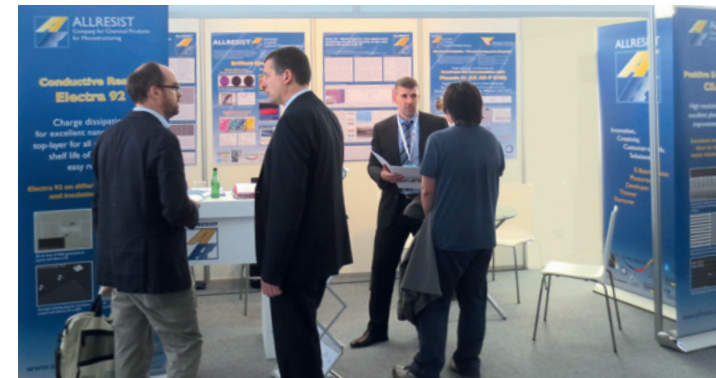
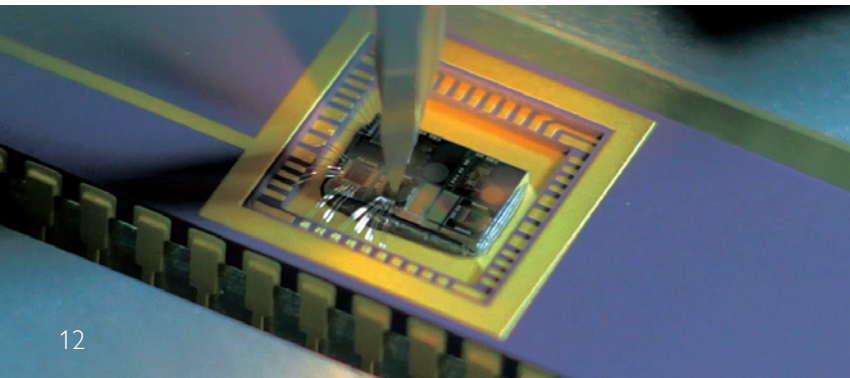


and Innovations

Our unique selling point is the development of customer-specific resists. With a high level of know-how and great flexibility, Allresist is able to manufacture inexpensive technology-adapted resists in a very short time.

We furthermore develop innovative products for future technologies, for example e-beam resist CSAR 62 (alternative to ZEP) with resolutions of < 10 nm and the conductive coating Electra 92 (Espacer alternative) for the dissipation of process-related electrical charges during e-beam lithography. The high structural resolution is also achieved when CSAR 62 and Electra 92 are used in combination on insulating substrates.

The thermally structurable Phoenix 81 developed in 2017 is the only resist worldwide which allows for a writing of about 10 nm-structures with the NanoFrazor (SwissLitho AG). A further new development is our extremely stable negative resist Atlas 46, an equivalent to SU-8, but with additional application options due to its expanded properties. The probably most successful development of Allresist in 2019 was Medusa 82 which has, in contrast to HSQ, a very high process stability and can be adjusted to yield an up to twentyfold higher sensitivity.

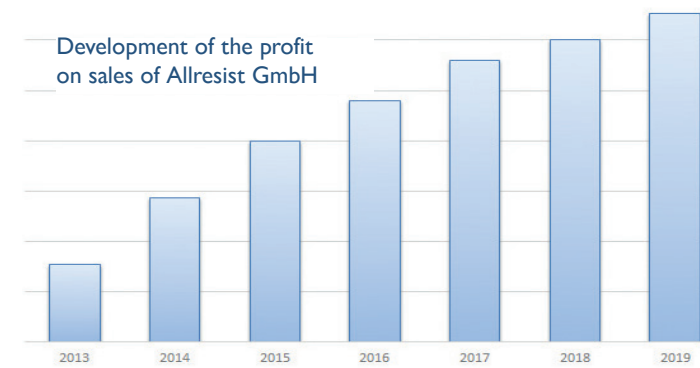


The World Market

Allresist has earned an excellent reputation worldwide and delivers its products to all continents. One trade mark is 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 comprehensive homepage.

The company has a constantly increasing export turnover of more than 50 %. European customers are supplied directly by Allresist; sales agencies in China, Korea, Taiwan, India, Russia, Israel and the USA organise the local distribution and open up new markets.

Allresist captured the world market with the innovative product developments CSAR 62, Electra 92, Atlas 46 and Medusa 82. With products of highest quality and at reasonable prices, we steadily win many new customers. We regularly inform our customers about recent developments in our AR NEWS and at trade fairs or congresses worldwide.



The Success

Our philosophy of moderate and steady growth instead of profit maximisation at all costs has contributed to our economic and social progress. Our motto is a quotation by Ulrich Wickert: “Profit and ethics are not mutually exclusive; it just depends on how the profit is made.” For us it is also important “what you make of it“. In this way, we have realised our vision to live true sustainability with all partners and to be an inspiration and role model for other companies. With this strategy, Allresist also reached its goal to remain an independent and autonomous company.

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 participates in many competitions, not only for continuous improvement and further development, but also to increase the brand awareness. The company often received high ratings and won many prizes:

- Excellent Knowledge Organization award in 2012 and 2015
- Berlin Brandenburg Innovation Award 2014
- Entrepreneur of the State of Brandenburg in 2014 and 2018
- Ludwig Erhard Prize: award 2009, award winner 2012
- Germany's employee champions: 2nd place in 2012
- Germany's customer champions: 3rd place in 2010
- Berlin-Brandenburg Quality Award: 2008 award, 2010 award winner
- Technology Transfer Award of the Brandenburg Technology Foundation 2002 and 2008
- Future award of East Brandenburg 2004

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 due to the improved thermal insulation of the building. The green roof in addition increases the efficiency of the adjacent photovoltaic system which helps to save about 21 tons of climate-damaging CO₂ emissions every year. Allresist uses the most part of the clean electricity for the steadily increasing production. On the occasion of the inauguration of the new building and our 26th anniversary, Brandenburg's environment minister Anita Tack (ret.) congratulated and wished the company further sustainable success.



The Responsibility

We feel highly committed to the society and are lucky to be economically successful with our strategy. Therefore, we want to give back part of the success to the people, especially the region, without forgetting the need in the world. Allresist donates more than 1 % of the revenue to people in need and to sports or cultural projects.

Allresist supports financially sustainable projects in the region: “Kinderträume Strausberg”, “Brandenburger Radsport” and the “Strausberger Tafel” (co-financing of small vans).

We regularly make our contribution to fight hunger and disease in the world, for example to the organization “Doctors Without Borders” and “SODI - fair world”. Since 2002, Allresist donates for children in needy areas through “Plan International”. It is particularly important to us to support our godchild Mikerly from Haiti, whose family receives financial resources so that he can attend school. We also support people who have become homeless in the event of disasters such as in Haiti, Pakistan and Mexico with generous donations.



CORONA pandemic

Necessity is the mother of invention! In the times of Corona, we considered what we could do to prevent the spreading of the virus – and at the same time to secure our sales which had decreased due to transport problems abroad and the closure of universities.

In times of crisis, creativity and mutual help are required. Due to the shortage of disinfectants, we came up with the idea of producing them ourselves according to the WHO recipe, which was made possible with the current exceptional approval of the Federal Institute for Occupational Safety and Health for disinfectants. We wanted to meet the enormously increased need of hospitals, medical practices, nursing facilities, offices and schools and also offer disinfectants to our customers to protect their employees.

Existing and new customers were enthusiastic about our hand and surface disinfectants, which are offered at cost price. Many positive press echoes and our own sales stabilization confirmed this decision.

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