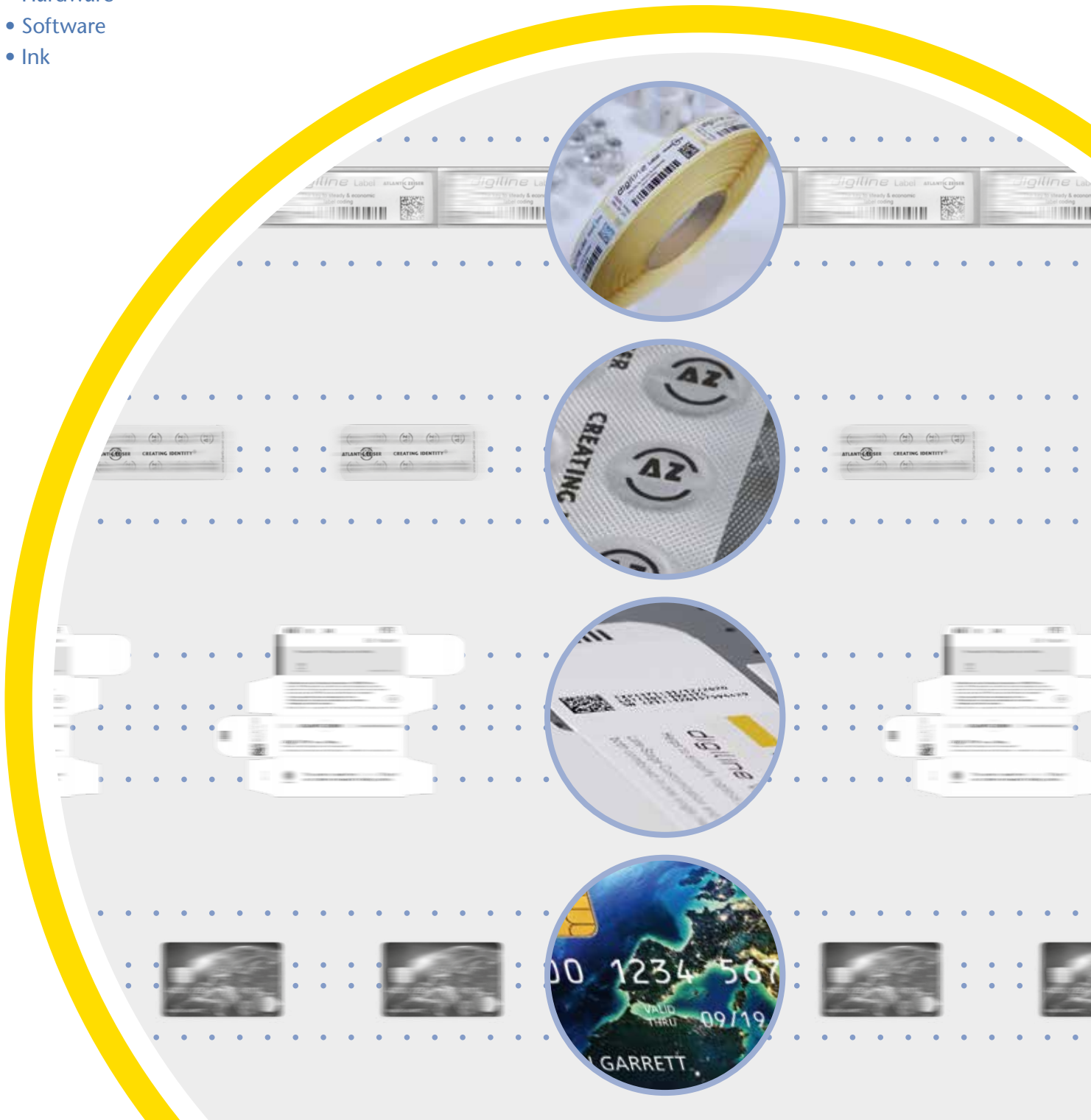


# INDUSTRIAL DIGITAL INKJET PRINTING SOLUTIONS

## Modular Systems and Integration Components

- Hardware
- Software
- Ink



## When Printing Reaches its Limits and Becomes a Challenge

Areas of application for Atlantic Zeiser inkjet solutions and modules:

- Printing variable data and frequently changing content
- Late stage customization
- Small and medium sized job runs
- Difficult substrates with low ink adhesion
- Temperature-sensitive substrates
- Non-impact printing
- High print quality
- High print speed
- Grayscale/spot color/full-color printing
- Personalization and/or serialization
- Integration into process and logistics chains at any point
- Monitoring and verification
- Workflow software

## Your Competitive Advantage

- Production savings through increased productivity, just-in-time production, and minimized operating costs
- Improved quality by using optimally matched inks for different surfaces
- More investment protection through modular integration and upgrade options
- Lower investment costs due to easy integration into existing production lines and transport systems
- Highest flexibility through workflow and controller software as well as a wide range of integration components for printing, curing, and verification
- Maximum machine availability through late stage customization
- Low inventory through late stage customization and reduced versions of pre-printed materials
- Greater added value through new business opportunities with industrial digital printing
- One-stop solutions

Inkjet systems from Atlantic Zeiser

## Industrial Digital Printing for Special Requirements

Perfectly matched and future-proof solutions will make the business of our customers profitable today and in the future. There is no room for compromises. We support our customers to increase their productivity continuously and improve their profits. For the daily challenges of industrial digital printing and future-proof extensions of existing solutions, we have the efficient and innovative answers to the questions, where others fail.

### Security Sets new Standards

Accuracy, reliability and quality are the most important attributes in the printing industry. Speed and flexibility are a commercial requirement as well for business success in the production process. This combination is unbeatable. Therefore we have made every effort to develop coordinated components that can be integrated into different system solutions for different requirements. These include inkjet printers, dryers and inks. Personalization and individualization systems designed by Atlantic Zeiser are used around the world to produce unique, individualized security documents, personalized documents, banknotes or packaging and branded products. Quality, precision and reliability are vital – Atlantic Zeiser high standards are based on this insights. We use this experience continuously for your benefit and added value. The result are market-proven innovations that enable you to meet the challenges and make your business future-proof and profitable.

### Superior Printing

#### Proven and Cost-Effective

Inkjet systems are now accepted around the world as efficient and productive. Design improvements and ink development have enhanced and led to widespread use of this proven technology. The benefit to our customers is the great reliability in performance, cost reduction and hence a protected investment.

#### Flexible and Economical

Inkjets are capable of printing numbers, codes, photographs, names and addresses without changing printing plates or using tools. Such a universal technology can be better utilized than specialized individual applications that depend on individual demand.

#### Non-impact Printing

No contact, no damage: inkjet technology eliminates both mechanical and thermal stresses on printing substrates.

#### Highest Quality

Inkjet printers have always been fast and economical. Today they are very close to matching the quality of offset print.

#### New Applications

Based on the print quality achieved, industrial inkjet digital printing is an ideal complement to traditional printing processes. This is how powerful hybrid solutions are created.

#### There is no Better Option

When ultimate print quality is required on sensitive surfaces with low ink adhesion, for example, or counterfeit-proof individualization at high printing speeds is called for – the more complex the requirements profile, the more certain you can be that there is no better option than inkjet technology.

### Perfect Interaction

Components of inkjet systems made by Atlantic Zeiser:

- Printers
- Standard and special inks
- Drying systems
- Cleaning and capping station
- System control (controller and software)
- Transport systems
- Verification (camera)

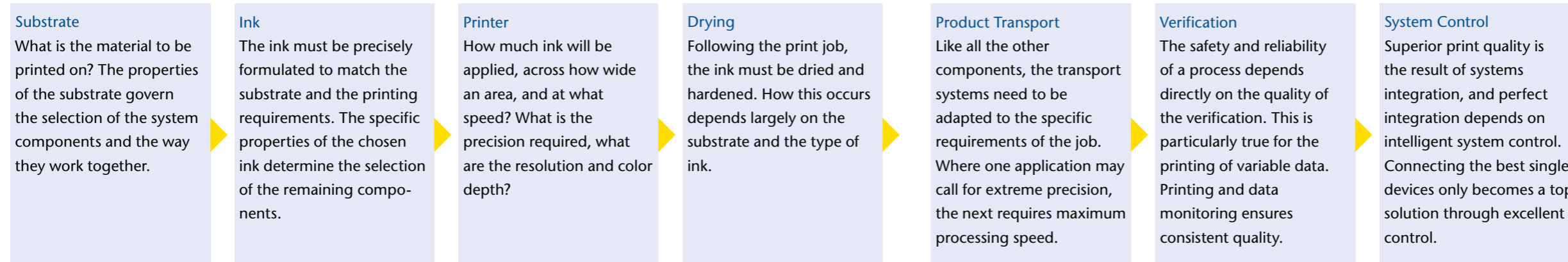
Since we develop and produce all core technologies in-house, our customers benefit from an unrivaled knowhow chain of hardware, software, and ink solutions. We offer compelling solutions from a single source.

The road to optimal and profitable printing results

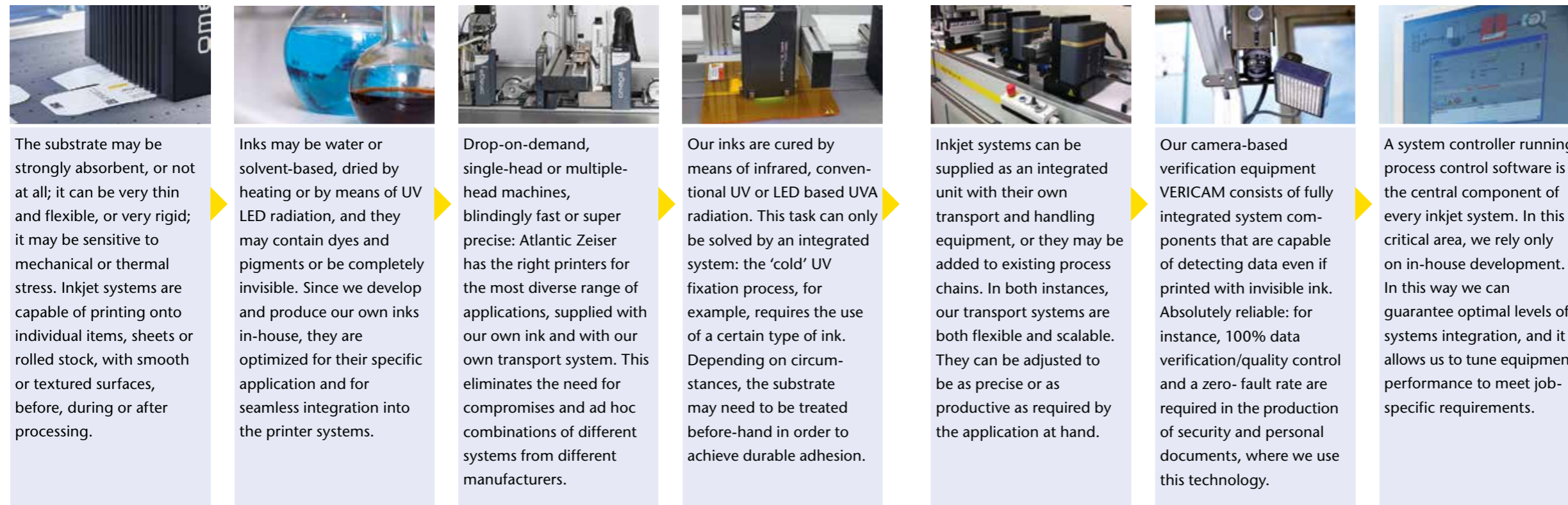
## Single-Source Systems Integration

Optimal results are achieved when components working harmoniously together are precisely attuned to each other and to their particular task at hand. Seamless integration is the hallmark of our inkjet printers, dryers and inks.

### Customer Requirement: The Ingredients



### Our Benefit: The Recipe



### From a Single Source:

#### Key Competences

- Ink development and production
- Component development and production
- Mechanical engineering and manufacturing
- Software development
- Project planning
- After-sales service

### Our Strengths

Equipment manufactured by Atlantic Zeiser is based on extensive knowhow in key and core technologies, from ink production right through to software development. One-stop integration also ensures the competent handling of critical components, thus ensuring smooth operation. Atlantic Zeiser develops, manufactures and markets technology components and integrated system solutions for commercial and government industrial customers. We believe integration is not something that is only carried out on the customer's premises, or even by the customer. It is part of our service; it starts before equipment is bought, and it does not end there. We continue to develop customer solutions, adding updates and upgrades that continually increase your productivity. That is our understanding of investment protection.

At the project stage, we work with the customer to develop suitable solutions for the customer's specific requirements, including the integration of our equipment into existing processes. On delivery of equipment, our experienced service personnel ensures trouble-free implementation and customization to their existing production environment. The service team is also available for further optimizations during ongoing operation as well as for advice on future expansions of an existing solution.



Some practical examples

## Inkjet Systems in Use

Inkjet systems made by Atlantic Zeiser have been tried and tested for decades in a wide range of applications, in different industries and locations. Whether they are supplied as a complete system or components integrated into existing production facilities: in practice our systems have delivered proof of top performance and efficiency. The examples listed below demonstrate the flexibility of our systems – the range of applications keeps growing with every new requirement our customers present us with.

### Full-Color Printing on Plastic Cards

A new level of quality: full-width, full-color printing onto synthetic surfaces, requiring a high degree of adhesion and durability of the printed information as well as a cost-optimized manufacturing process.

#### Examples of Applications

- Personalization of banking and ID cards
- Full-width color printing on commercial CR80 cards

#### The Solution from Atlantic Zeiser

- Full-color printing on cards in one single pass
- Special inks developed for non-absorbent substrates
- Optimal integration into high-performance card personalization system
- Complete printer system consisting of a 4C printer, special inks, drying system and transport system with feeder unit, discharge and controller unit as well as alternative encoding technologies
- Inline varnishing for optimal abrasion resistance

### Inkjet Printing onto Plastic and Metal

Late stage customization and coding using high-resolution printing systems.

#### Examples of Applications

- Blister lid foil for the pharmaceuticals industry
- Synthetic foils for the packaging industry
- Printing onto metal components
- Printing onto flat injection-molded parts
- Printing onto other synthetic surfaces

#### The Solution from Atlantic Zeiser

- Complete systems for printing on foils, sheets and labels
- Special inks developed for non-absorbent substrates
- Printing systems integration into existing plants
- Cold curing for materials of high thermal sensitivity
- Printing of variable data with integrated camera monitoring

### Packaging

Coding/serialization and late stage customization using high-resolution printing systems.

#### Examples of Applications

- Serialization of pharmaceutical packaging
- Country-specific marking of folding boxes
- Customer-specific printing of folding boxes
- Product-specific coding of folding boxes
- Coding of blister packaging
- Coding/serialization of labels

#### The Solution from Atlantic Zeiser

- Complete systems for variable printing on folding boxes, labels and blister lid foils
- OEM printing systems integration into existing plants
- Visible and invisible special inks for absorbent and non-absorbent substrates incl. low migration inks
- Cold curing for materials of high thermal sensitivity
- Printing of variable data with integrated camera monitoring

### Special Papers

Printing onto highly absorbent substrates or security documents using high-resolution or extremely fast printing systems.

#### Examples of Applications

- Coding of tax labels
- Printing and individualization of security labels

#### The Solution from Atlantic Zeiser

- Complete systems for printing on foils, sheets and labels
- OEM printing systems integration into existing plants
- Visible and invisible special inks for absorbent and non-absorbent substrates
- Cold curing for materials of high thermal sensitivity
- Printing of variable data with integrated camera monitoring



Atlantic Zeiser is a leading provider of sophisticated personalization, customization and track & trace solutions. The product portfolio ranges from banknote numbering solutions, complete systems for the production and personalization of identity and flat financial cards, to technologies for the serialization of drug packaging and track & trace of high-quality cosmetics. As a competent, innovative and reliable partner, Atlantic Zeiser helps companies, government agencies and institutions face new challenges.

Atlantic Zeiser has its head office in Emmingen in the German state of Baden-Württemberg and oversees eleven facilities worldwide as well as sales and service partners in around 50 countries.

You can find more information at [www.atlanticzeiser.com](http://www.atlanticzeiser.com), or by contacting one of our specialists directly. We will work with you to identify your specific requirements and to develop the individual solution that meets those requirements. You can also view a range of samples and test facilities at our in-house showroom.

Please call us, or send an e-mail.

We look forward to providing you with advice and support!