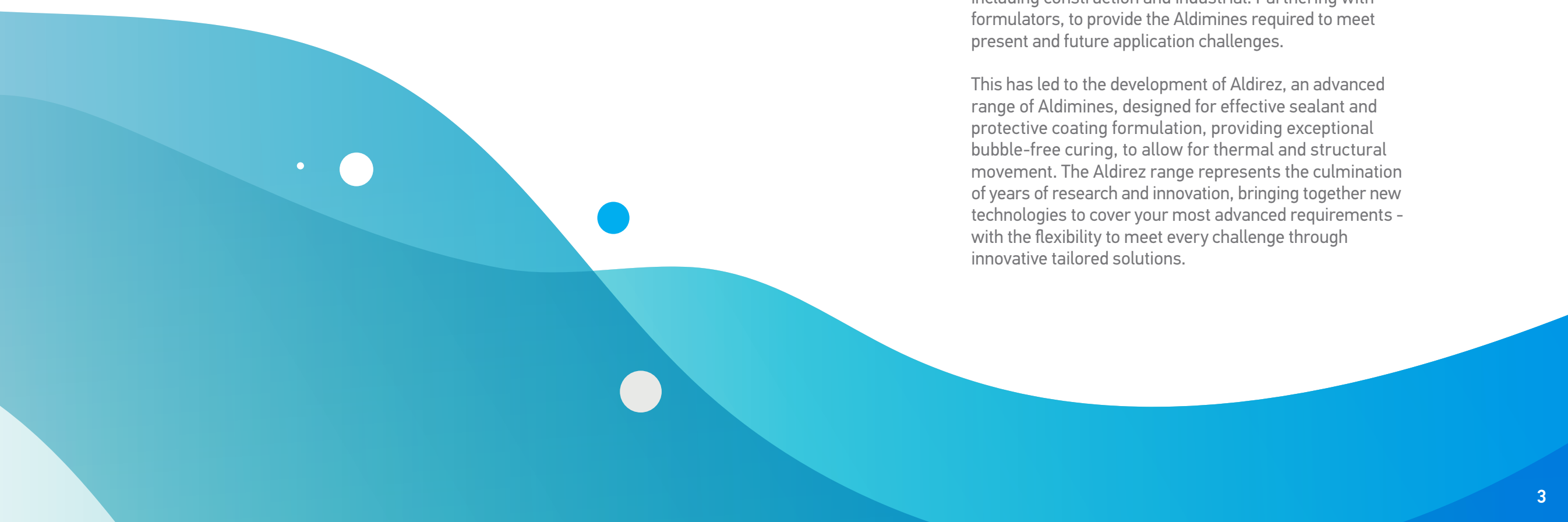




Aldirez

products



Extending the possibilities of Aldimine performance. With next generation customer chemistry.

At Incorez, our focus on customer chemistry means that we're continually looking for new ways to enhance sealant and coating performance across multiple industries, including construction and industrial. Partnering with formulators, to provide the Aldimines required to meet present and future application challenges.

This has led to the development of Aldirez, an advanced range of Aldimines, designed for effective sealant and protective coating formulation, providing exceptional bubble-free curing, to allow for thermal and structural movement. The Aldirez range represents the culmination of years of research and innovation, bringing together new technologies to cover your most advanced requirements - with the flexibility to meet every challenge through innovative tailored solutions.



Joint-sealing elasticity meets complete application flexibility.

Across every sector, from building and construction, to transportation and packaging, wherever high-performance, sustainable waterproof adhesives and sealants are needed, Aldirez provides the perfect Aldimine solution.

Aldirez BH is a high-performance additive, optimising the stability and efficacy of flexible joint sealants, elastic bonding adhesives, and general sealing and bonding compounds.

Aldirez A is a bis-aldimine, specially designed to accelerate cure in PU systems without producing CO₂ gassing, facilitating bubble-free performance, in both aromatic and aliphatic prepolymers.

The experienced R&D team at our manufacturing plant in Preston, UK, can also develop customised Aldirez solutions, working in partnership with your chemists, to help you to develop solution-focused formulations. By enabling technically rewarding relationships, exploring new formulation possibilities, and adapting to meet every new challenge, the Aldirez range is equipped to provide the definitive custom chemistry solution.



Aldirez BH is our Aldimine latent curing agent for joint sealants, elastic bonding adhesives, and general sealing and bonding products.

It is particularly useful in high-build polyurethane systems, as it hydrolyses on exposure to moisture, to give you a reactive amine cross-linker and benzaldehyde. That means better through-cure, and no carbon dioxide.

Aldirez BH has been designed for one component PU systems, and is suitable for use with both aromatic and aliphatic prepolymers. It has excellent in-can stability with aromatic prepolymers, making it a better choice for 1K aromatic systems than standard latent curing agents.



Aldirez BH

Aldirez

BH

Features and Benefits:

- ✓ Aldimine latent curing agent that hydrolyses on exposure to moisture, yielding a reactive amine cross-linker and benzaldehyde
- ✓ Enables bubble-free curing at elevated temperature and humidity levels
- ✓ Suitable for use with both aromatic and aliphatic prepolymers
- ✓ Very low viscosity
- ✓ Very good storage stability with aromatic isocyanates
- ✓ Low temperature crystallisation stability (down to -20°C)
- ✓ Excellent shelf-life

Typical Applications:

- ✓ Flexible joint sealants
- ✓ Elastic bonding adhesives
- ✓ General sealing and bonding compounds
- ✓ Waterproofing applications

Every sealing and bonding problem, cured and solved.

Aldirez BH is a remarkably versatile solution, facilitating sealing and bonding with just one product.

It takes moisture-triggered technology to new heights, by allowing bubble-free curing at high temperatures and humidity, whilst ensuring good in-can stability in these application conditions.

Typical Properties:

Functionality

2

Density (g/cm³)

1.02

Equivalent Weight

237

Colour (APHA)

Colourless to slightly yellow

Typical Viscosity @ 20°C (cP)

300

Flash Point (°C)

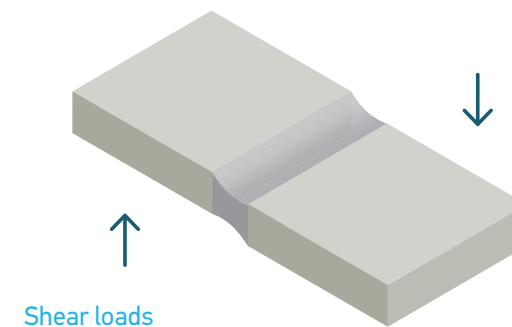
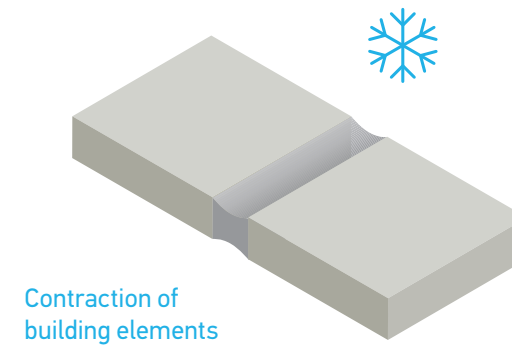
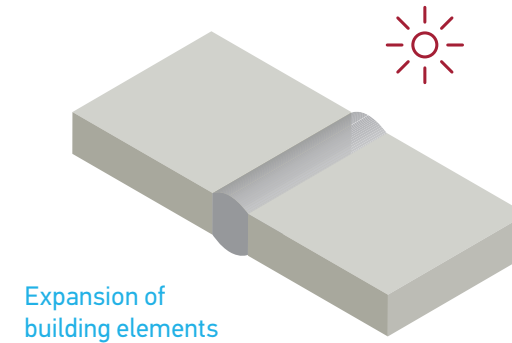
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Everything is contained. All is sealed. Nothing gets through.

Joints and openings between construction elements can be found in different parts of a construction, e.g. between pre-cast concrete elements in façades, around windows and doors, at the connection between floors and walls, in storage tanks, etc.

Joint sealants have to meet various requirements, depending on the function and location of the respective joint. The purpose of joint sealing is generally to:

- Prevent passage of media (air, water, chemicals, smoke, etc.)
- Provide thermal and sound insulation
- Enhance the visual appearance of the whole construction



Why elastic sealing?

Building and civil engineering structures consist of individual elements, which exhibit relative movements to each other. There are two kinds of such movements.

Thermal movements

Changes in temperature result in an expansion or contraction of the building elements, i.e. joints become larger (extension) or smaller (compression) continuously. Thermal movements are considerable in the case of big elements, or when different materials are used (e.g. brick wall and vinyl window frame).

Structural movements

These movements are caused by settlements of the structure, vibrations, or other loads (wind, etc.), and consequently deform the joint dimensions and hence may stress the sealing material significantly. Structural movements often result in shear stress acting on the sealant.

Advantages of elastic joint sealants

In comparison to rigid materials (e.g. cement or mortar), high-performance elastic joint sealants are able to accommodate thermal and structural movements without breaking or losing the adhesion to the building elements. These sealants thus retain their original functionality throughout their whole life cycle, and provide long-term tightness.

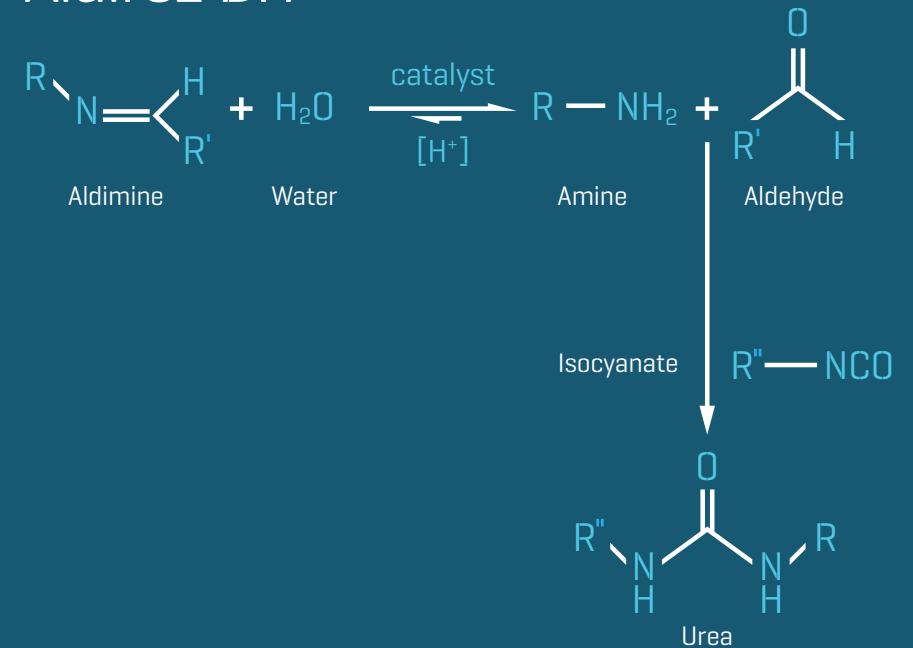
Taking moisture out of the equation, completely.

Our unrivalled heritage in the creation of moisture sensitive materials makes us better placed to bring moisture-free performance to polyurethane coatings, adhesives, and sealants. Our moisture-triggered chemistry enables curing in all kinds of temperature and humidity conditions, resulting in tougher, more durable films.

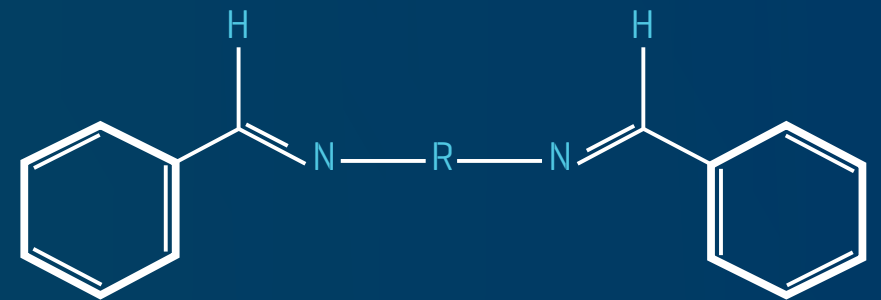
Aldirez BH is our Aldimine latent curing agent for joint sealants, bonding adhesives, and general sealing and bonding products. It's perfect for high-build polyurethane systems as it hydrolyses on exposure to moisture, giving a reactive amine cross-linker and benzaldehyde, leading to faster through-cure without carbon dioxide.

1K PU elastic adhesives formulated to include Aldirez BH provide a highly effective waterproof bond and excellent resistance to thermal movement deformation. These properties make them perfectly suited to external bonding applications, such as buildings façades.

Aldirez BH



Aldirez BH Molecule



Sealing, solved. Key sealing requirements for joints.

Sealing Solutions for Movement Joints

The main requirements for a sealant in this application are:

- Low modulus, even at low temperatures
- Excellent weatherability
- High colour stability and UV resistance
- Good adhesion to porous and non-porous substrates
- High tear resistance
- Paintability
- Resistance to cleaning procedures
- Defect-free curing

Typical application example:

Sealing of joints between pre-cast concrete elements

Sealing Solutions for Connection Joints

The main requirements for a sealant in this application are:

- Broad adhesion range to porous and non-porous substrates
- Compatibility to various substrates, including plastics, paints, and coatings
- High colour stability and UV resistance
- Excellent weatherability
- Paintability

Typical application example:

Sealing of joints between window frames and bricks of concrete slabs

Sealing Solutions for Floor Joints

Sealants used for floor joints are required to have:

- High mechanical strength
- High abrasion resistance
- Good chemical resistance
- Excellent adhesion properties

Depending on the area of application, additional properties may be required.

Typical application examples:

Sealing of floor connection joints in factories

Sealing of joints in car parks and pedestrian areas

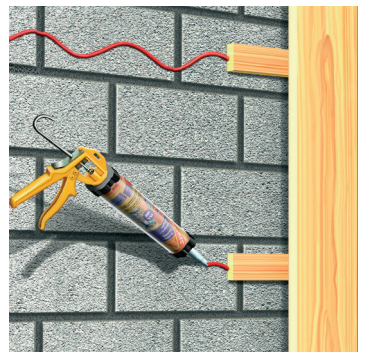


Sealing and bonding solutions.

Sealing and Bonding products can be formulated with Aldirez BH, which produces permanent elasticity and resistance to vibration and movement from temperature changes. They can also provide incredibly strong, permanent adhesion, with excellent tack and non-sag properties. In addition, they can be used as permanently flexible, waterproof fillers for wide gaps.

A versatile solution

Aldirez BH provides moisture-triggered technology, which enables water and weatherproof compounds to be developed that can be used inside and outside. They are easy and ready-to-use, and are a versatile alternative to mechanical fixing.



Technically outstanding and performance enhancing, Aldirez A is a bis-aldimine, which works as a high-performance accelerator for moisture-triggered PU 2K primer systems that hydrolyse to yield a reactive amine crosslinker and an aldehyde.

Specially designed to accelerate cure in PU systems, Aldirez A is suitable for use with both aromatic and aliphatic prepolymers, providing the essential versatility and consistently high performance you need across a wide range of applications.



Aldirez A

Aldirez

A

A professional bubble-free finish every time. Even at low temperatures.

Bubbling. It's a problem which pops up time and time again, particularly in areas subject to low temperature and high humidity levels. Fortunately, under these conditions, Aldirez A provides the ability to create primers that remain remarkably resilient and bubble-free.

In addition to its exceptional ability to inhibit CO₂ generation, formulators are able to accelerate the cure of PU primers, to improve turnaround efficiency, whilst retaining a workable pot life.

Features and Benefits:

- ✔ Acts as an accelerator to replace/reduce metal catalysts
- ✔ Enables bubble-free curing at elevated temperature and humidity levels
- ✔ Suitable for use in aromatic and aliphatic prepolymers
- ✔ Extremely low viscosity
- ✔ Exceptional low temperature cure

Typical Applications:

- ✔ 2K PU primers for concrete and metal
- ✔ Other protective coatings
- ✔ Floor surfaces

Typical Properties:

Functionality

2

Density (g/cm³)

0.865-0.875

Average Equivalent Weight

125

Colour (APHA)

Colourless to slightly yellow

Typical Viscosity @ 20°C (cP)

25-40

Flash Point (°C)

81



Creating the right customer chemistry.

The way we approach our relationships defines everything we do, from continuous product development, to consistently breaking new ground.

If you would like further information about the Alidrez range, or how we can tailor our systems to meet the most specialised application, simply contact our applications team:

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Customer Chemistry

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