



# Novatio Assembly Solutions

adhesives, primers & cleaners

 novatio

We make making things better

Made for makers

# What is your challenge?

Read more at

[novatio.be/assembly](https://novatio.be/assembly)

Assembly processes can be speeded up considerably with the right solutions.

Novatio focuses on just one question: What production challenge does our product need to solve? We then choose or develop the right solution.

**So. What has to be done?**

By you

By us

By your customers

We would like to hear how we can further provide optimal assistance to professional creators and producers.

The Novatio assembly range offers solutions for the pre-treatment, bonding and sealing of parts, components and finished products in a production environment.

For these applications, we can count on an extensive range of solutions that make production as easy as possible. We work with you to find the most efficient solution to your challenge. And we then test this extensively in practice.



### NAH-1100

HIGH STRENGTH  
HYBRID MS POLYMER

- ▶ High bond strength
- ▶ Low stress bonding
- ▶ One component
- ▶ Room temperature moisture cure
- ▶ Safe to use



### NAH-1200

FAST  
HYBRID MS POLYMER

- ▶ Fast curing profile
- ▶ Low stress bonding
- ▶ One component
- ▶ Room temperature moisture cure
- ▶ Safe to use



### NAE-1300

HIGH STRENGTH  
1K EPOXY

- ▶ High bond strength
- ▶ Fast heat cure
- ▶ One component
- ▶ Extreme long workability



### NAE-1500

EASY  
2K EPOXY

- ▶ High bond strength
- ▶ Room temperature cure
- ▶ Two component
- ▶ 1/1 mixing ratio



### NAE-1600

FAST  
2K EPOXY

- ▶ High bond strength
- ▶ Fast room temperature cure
- ▶ Two component
- ▶ 2/1 mixing ratio

**No solution to your challenge?  
We are happy to consult with you  
to create a tailor-made product.**

# The answer is not (yet) in our range? Welcome to our lab.

We get to work on every question. And if the answer is not in our range yet, we go a step further. Welcome to our lab. Here we start from our basic technology and refine it further until we have your solution. To do this, we subject your challenge to the laws of adhesive chemistry, conducting tests in the most extreme conditions and the vagaries of practice. And we do not do that alone.

Your precision work involves expertise and specific challenges. Your expertise combined with our adhesive knowledge is the formula for a tailor-made solution.



## Why do we have our own lab?

Innovation is in our DNA. In our lab, we take this even further. Optimising further to achieve an optimal product so as to provide our customers with even better support. The sky is the limit.

If necessary, we can further develop our existing products in our own lab. This is really about collaboration with manufacturing companies. We involve our customer in the entire process. We do this together with our technical and commercial experts.

### **Testing, producing and marketing.**

Innovation is not an exception but, rather, a requirement, because our product is never completely 'finished'. Our process is never over.



# Are you our customer?

Our experts feel at home in all markets and know where our innovation can make a difference during the production process.

We are already helping these sectors with our primers, adhesives and sealants:



MADE FOR

## Assembly & Production

- ▶ Sharing ideas about your process
- ▶ Fast curing
- ▶ Minimises production downtime

Novatio has all the advantages of a medium-sized supplier. Large-scale capacity with the flexibility of a small partner. We welcome your questions about how we can help you optimise your production.

Is your production sector our next challenge? Our experts are ready to help.



MADE FOR

## Lighting

- ▶ Thermally conductive
- ▶ Tailored to your design
- ▶ Fast curing

When bonding luminaires, it is crucial that the adhesive also reacts well to the heat generated by the lamp. Our experience with the assembly of lamps led us to apply a thermally conductive technology. Especially for any LED lamp technology



MADE FOR

## Windows & Doors

- ▶ Insulating
- ▶ Tailored to any material
- ▶ Fast curing

Progress needs to be made in the production of windows and doors and each material comes with its own challenges. After years of experience in the sector, we have knowledge of adhesives that are quick-drying and provide insulation in every end result.

# Step-by-step towards your solution

From start to finish, Novatio works together with you to find the optimal solution to your challenge. In addition to taking account of your issue, we also consider safety and the commercial possibilities. Step-by-step.

To find the right adhesive for your needs, we start from the basics: What do you wish to do and what is your challenge? Which type of adhesive can best help you?

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## Adhesive strength and flexibility

We have optimised our core technology to produce materials that can be both strong and flexible. The product choice is determined by the application: how strong should the connection be, how much stress is there on the adhesive bond?

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## Speed

In an assembly environment, the production line has to keep on rolling. Or do you wish to have the time to perfectly position the assembly before the adhesive holds everything together? We have also developed various principles to meet this need.



## Strong or fast

We have several functionalities for all basic technologies that we would like to discuss with you:



### Structural

In our structural bonding, we enhance the strength of the adhesive to bond two materials over the long term. What belongs together must stay together.



### Thermally conductive

With lighting, but also with machines, temperatures can become very high. For this specific challenge, we have developed adhesives that also dissipate heat.



### Insulating, damping or lightweight

Insulating, damping, lightweight. We can also handle this on the basis of one functionality. From blocking noise to absorbing unwanted temperature fluctuations. Even weight optimisation is possible.

## Tailor-made

This is where the real work on tailoring at product level starts.



### In our lab

In our lab, we imitate reality so as to test the bonding under the most extreme conditions



### Prototyping

From the lab to practice. We provide you with our best proposal, which must then prove its worth in your engineering or production process so that we can make adjustments where necessary. On the way towards the optimal solution.

### Cost-effective solution

There is a perfect solution for every challenge. But that does not mean it is the best investment.

As a partner, we always consider whether the specific adhesive also remains interesting for you in commercial terms.

# Preparing

A properly treated surface is a crucial basis for bonding and sealing all materials. By taking the preceding steps, we now know what bonding must do for which material. We also look at what type of pre-treatment of the specific surfaces is necessary for an optimal result.



## Cleaners

Our assembly range includes the suitable cleaners and degreasers to prepare the different materials for the production process.



## Primers

Difficult substrates or heavy mechanical loads require better anchoring at the interface between material and adhesive. Our primers improve adhesion to difficult materials and rarely leave traces.



## Plasma activation

For very difficult materials, we shall advise you whether plasma treatment is the ultimate surface preparation.





# From start to finish

When we say we will work with you from start to finish, we mean it. Our solution is ready. But our work is not done until you can use it optimally.



## Tailor-made

A product has to work. This goes further than just the bonding itself, the application must also be easy to work with. Do you use this product on a daily basis or only occasionally? In large quantities or for detailed work? We consider all aspects so as to deliver your glue in the most efficient packaging. We produce for producers, right down to the end use of the product.



## Application and accessories

Once the adhesive is ready, you need to get on with the job. We look for the best system for the application together. In our product overview, you will find our cleaners and primers that will make your work easier. If you need specific application tools, we can suggest the right partner for you.



## Training

We never leave you to your fate. When navigating through our range, when using our products and when identifying possible areas for improvement. Our staff are all trained to help you use our products.

# We proceed step-by-step to your perfect bonding.

Discover more at

[novatio.be/assembly](https://novatio.be/assembly)



# Our range

We develop tailor-made formulas, experiment with the right compositions for a new product or make packaging the way you need it. This is how we help professional producers best.

## NAH-1100 HIGH STRENGTH HYBRID MS POLYMER

1 COMPONENT HYBRID MS POLYMER

<b>Curing</b> Loadable after 6 h at room temp. 7 days moisture curing	<b>Adhesiveness*</b> Metal: 3-4 MPa Plastics: 2-3MPa	<b>Application</b> Industrial assembly of metals, engineering plastics and glass in: ▶ <b>Windows and doors</b> ▶ <b>Lighting</b> ▶ <b>Assembly and production</b>
<b>High flexibility</b> Shore A: 45 Elongation: 300%	<b>Colour</b> Tailor-made	

**VERSIONS:** NAH-1100 Structural bonding | NAH-2100 Heat dissipating | NAH-3100 Lightweight

## NAH-1200 FAST HYBRID MS POLYMER

1 COMPONENT HYBRID MS POLYMER

<b>Curing</b> Loadable after 15 min. at room temp. 7 days moisture curing	<b>Adhesiveness*</b> Metal: 3-3.5 MPa Plastics: 2-3 MPa	<b>Application</b> Industrial assembly of metals, engineering plastics and glass in: ▶ <b>Windows and doors</b> ▶ <b>Lighting</b> ▶ <b>Assembly and production</b>
<b>Medium flexibility</b> Shore A: 60 Elongation: 190%	<b>Kleur</b> Tailor-made	

**VERSIONS:** NAH-1200 Structural bonding | NAH-2200 Heat dissipating | NAH-3200 Lightweight

## NAE-1300 HIGH STRENGTH 1K EPOXY

1 COMPONENT EPOXY

<b>Curing</b> Loadable after 30 min. at 120°C Final strength after cooling Independent of moisture	<b>Adhesiveness*</b> Metal: 10-20 Mpa Plastics: 2-4 Mpa	<b>Application</b> Industrial assembly of metals and engineering plastics in ▶ <b>Lighting</b> ▶ <b>Assembly and production</b>
<b>Low flexibility</b> Shore D: 85	<b>Colour</b> Tailor-made	

**VERSIONS:** NAE-1300 Structural bonding | NAE-2300 Heat dissipating | NAE-3300 Lightweight

## NAE-1500 EASY 2K EPOXY

2 COMPONENT EPOXY - 1/1 MIXING RATIO

<b>Curing</b> Loadable after 24 h at room temp. Final strength after 3 days Independent of moisture	<b>Adhesiveness*</b> Metal: 10-18 MPa Plastics: 2-5 MPa	<b>Application</b> Industrial assembly of metals and engineering plastics in ▶ <b>Lighting</b> ▶ <b>Assembly and production</b>
<b>Low flexibility</b> Shore D: 75	<b>Colour</b> Tailor-made	

**VERSIONS:** NAE-1500 Structural bonding | NAE-2500 Heat dissipating | NAE-3500 Lightweight

## NAE-1600 FAST 2K EPOXY

2 COMPONENT EPOXY – 2/1 MIXING RATIO

<b>Curing</b> Loadable after 1 h at room temp. Final strength after 24 h Independent of moisture	<b>Adhesiveness*</b> Metal: 6-20 MPa Plastics: 1.5-4 MPa	<b>Application</b> Industrial assembly of metals, engineering plastics and glass in: ▶ <b>Lighting</b> ▶ <b>Assembly and production</b>
<b>Low flexibility</b> Shore D: 70	<b>Colour</b> Tailor-made	

**VERSIONS:** NAE-1600 Structural bonding | NAE-2600 Heat dissipating | NAE-3600 Lightweight

\* Under ideal conditions (by means of correct pre-treatment)

## Our packaging

Based on the needs of our customers, we shall determine the ideal packaging form, from prototype 55 ml cartridges to 200 litre drums.

The packaging images below are some examples of our options.

### Precision bonding by manual application using different types of cartridges.



### Precision bonding via automatic bonding systems in different types of vessels. (in production environment)



## Accessories & tools

Our assembly range also includes accessories and tools to make work easier.



**HPD HAND PLUNGER DISPENSING GUN DG55**  
SYRINGES



**MANUAL SYRINGE DISPENSING GUN**  
SYRINGES



**TT SERIES DISPENSING TIPS**  
SYRINGES



**HDPE NOZZLES**  
CARTRIDGES 1K



**MIXERTIP 2K**  
CARTRIDGES 2K



## The cleaning process explained.

Coating, plastic and metal surfaces are designed for durability and have a relatively dense surface structure. That makes them easy to clean with water-based cleaning agents. However, this often removes only the visually perceptible macro pollution while an invisible layer of microscopic contamination can remain behind. These surfaces can attract non-polar contamination from the air flowing past, such as condensed VOCs and soot deposits. This precipitation, together with grease stains, is the main cause of bond failure.

To obtain a perfect bond, both macro and micro pollution must be tackled.

**Several steps are therefore needed:**

1. **Soak off and dissolve** organic non-polar contamination with Novatio Safety Clean, a safe solvent-based cleaner that can be used on all surfaces. Most of the contamination will be removed by wiping the surface with an absorbent cloth.
2. **Remove** the remaining micro-contamination with Novatio Multifoam, a foaming cleanser with triple action:
  - 1<sup>st</sup> **Emulsify**. The surfactants in the cleaner have a hydrophilic (water-attracting) and a hydrophobic (water-repellent) part. They 'encircle' the dirt particles and isolate them from the substrate.
  - 2<sup>nd</sup> **Chelation**. Metal ions (calcium, magnesium) are chemically bonded so that they do not leave white spots after drying.
  - 3<sup>rd</sup> **Insulate**. The foaming creates a capillary force that draws dirt particles from the surface and out of the pores. When the cleaner is wiped away, all contamination is taken with it.

## Cleaners

The ideal bonding requires perfect contact of the adhesive with the surfaces of the materials to be bonded. Thorough cleaning is therefore of the utmost importance.



### SAFETY CLEAN

SOLVENT FOR CHEMICAL POLLUTION

#### Composition

Aliphatic hydrocarbon solvent

#### Colour

Transparent

#### Application

Thorough cleaning, without residue  
Safe and quick to use on most materials such as:

- ▶ Painted surfaces
- ▶ Vinyl
- ▶ Glass
- ▶ Rubber
- ▶ Formica
- ▶ Textiles
- ▶ Plastics
- ▶ Metals (does not cause oxidation)
- ▶ ...



### MULTIFOAM

FOAMING CLEANER FOR NATURAL CONTAMINATION

#### Composition

Cleaning agent, alcohol, additives, fragrance, deionised water

#### Colour

Transparent

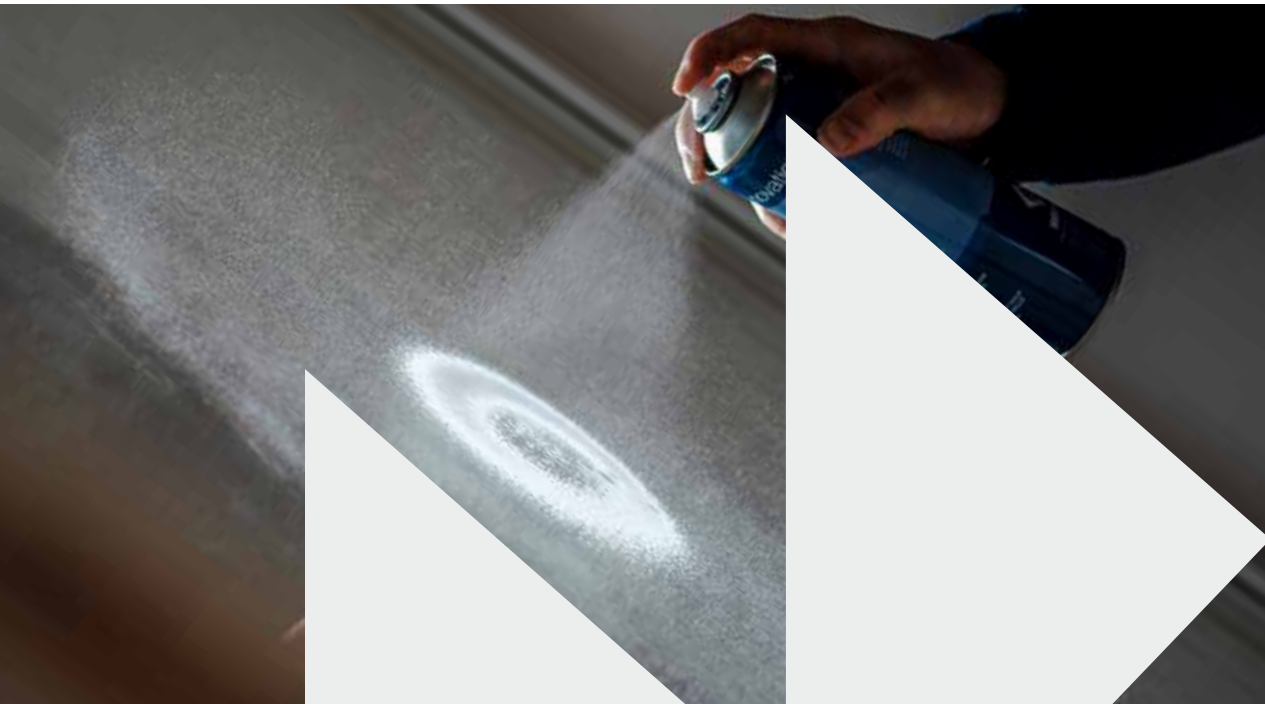
#### Form

Liquid in aerosol, slightly foaming when applied

#### Application

Spotless foaming cleaner for natural contamination.  
Safe to use - will not scratch or stain.

- ▶ Painted surfaces
- ▶ Stainless steel and other sensitive metals
- ▶ Glass - mirrors
- ▶ Rubber
- ▶ Plastics
- ▶ Does not cause oxidation on metal surfaces
- ▶ ...



## Primers

Match your bonding with the right primer. Proper pre-treatment of the surfaces of the parts to be bonded is half the battle.



### MGM-170 MGM PRIMER

ADHESIVE PRIMER

**Basis**

Siloxane in water-based solution

**Drying time**

20 to 60 minutes, depending on temperature and humidity.

**Colour**

Light yellow – transparent

**Application**

Primer for bonding or coating on all inorganic (mineral) substrates

- ▶ glass
- ▶ metal
- ▶ natural stone
- ▶ granite
- ▶ limestone
- ▶ ceramic materials
- ▶ concrete and cement-based substrates.



### SEAL & BOND SPECIAL PRIMER

ADHESIVE PRIMER FOR DIFFICULT MATERIALS

**Basis**

polyolefin

**Drying time**

+/- 10 min.

**Colour**

Transparent

**Application**

Improve adhesion on difficult surfaces to be bonded, such as:

- ▶ smooth materials
- ▶ bumpers
- ▶ aluminium powder-coated window profiles
- ▶ sandwich panels
- ▶ doors
- ▶ external mirrors
- ▶ spoilers ...



# About Novatio

Novatio provides solutions for everyone who makes, protects, maintains and recovers things. We look at the work that needs to be done - across industries and sectors. And we develop just the right application. In this way, we make making things better.

## But we do much more:

We believe that all creators should be able to be proud of their work. Innovation for creative producers therefore extends further than just glue. Novatio goes further with more than 1,000 products in the areas of bonding, sealing and surface treatment.

## What is Novatio?

An experienced team of co-creators. Each of our employees, whether they work in sales or production, is trained to understand your problem from the very first contact.



## Our story

Founded in 1978 and later strengthened by Novatech, Novatio is now part of Novatech International. A Belgian family business, the products of which are available far beyond the national borders - in 27 countries.

Novatech International developed an expertise in polymer technology that continues to make us the market leader in MS Hybrid Polymers today.

We have been awarded various quality labels and certificates for our products.

ISO 9001: 2015

ISO 14001: 2015

ISO 45001: 2018



BREEAM







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