# PROFESSIONAL INDUSTRIAL COATING SYSTEMS





## **INDUSTRIAL System**









### **NOVOL INDUSTRIAL SOLUTIONS**

For over 40 years, NOVOL has been developing automotive coating product systems which include a wide range of coating supplies and advanced colour matching systems. The professional **INDUSTRIAL Coating Systems** line is a result of NOVOL's experience dedicated to industrial customers who manufacture buses, coaches, rail wagons, semi-trailers, special-purpose and custom car bodies, agricultural machines and building machinery, steel structures, tanks, etc. INDUSTRIAL Coating Systems is a comprehensive technology of industrial coatings and includes topcoats, anti-corrosive primers, putties, and supplementary materials used both in light and heavy industries.

### ISO 9001:2015 CERTIFIED QUALITY

NOVOL's focus is to meet the market demands. The superior quality of the materials used in the manufacture of the INDUSTRIAL Coating Systems products ensures highly adhesive coats which are resistant to chemical substances and protect substrates against corrosion. These advantages have been confirmed by the users of INDUSTRIAL Coating Systems and the test results of NOVOL's materials performed at external laboratories. NOVOL has implemented a Quality Management System in compliance with ISO 9001:2015. Its benefit is that the performance of the products marketed in Europe, Asia and Africa is a direct result of tested and proven materials processed with optimised manufacturing technologies.

























## **INDUSTRIAL System**





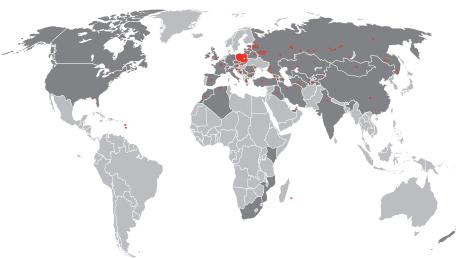


### **CONSULTING AND TECHNICAL ASSISTANCE**

Our Representatives and Technicians offer support and consulting services related to the application of INDUSTRIAL Coating Systems materials. These specialists are always in touch with NOVOL's customers to foster what is best in cooperation, while providing consulting linked to cost optimisation and supervision of industrial coating applications. The state-of-the-art NOVOL Training Centre in Komorniki holds regular training courses for process engineers and painters in the application of coating materials and the selection and use of coating technologies.

### **NOVOL AROUND THE GLOBE**

NOVOL operates a mass scale distribution network of its products in Western and Eastern Europe, Australia, New Zealand, the Middle East, and Africa. NOVOL's manufacturing portfolio covers over 1300 different products on 14 production lines. NOVOL's manufacturing and storage floors occupy over 17,000 square metres. The annual production output is 18,200 tons with 13,000 tons exported to 50 countries across the globe. The needs of specific markets are addressed by its trading partners in Germany, Russia, and Ukraine.







## Laboratory









### **NOVOL RESEARCH & DEVELOPMENT LABORATORY**

NOVOL has its own Research & Development Laboratory, a modern and advanced unit which is on the continued search for innovative solutions. It is staffed by a team of qualified and experienced specialists who perform testing of automotive and industrial coatings, flooring and pavement systems, wood flooring chemicals, and boatbuilding chemicals. Their research work includes the development of product formulas and manufacture processing, mechanical testing (e.g. tensile bending, and shear strength; impact resistance, hardness, etc.), ageing testing (with anticorrosion tests in spray salt chambers, UV resistance tests, etc.), and evaluation of application performance (adhesion to different types of substrates, penetration power, filling, texture, gloss, etc.).

All NOVOL products are manufactured from high-quality materials in closely controlled, state-of-the-art processes. The Quality Management System implemented at NOVOL complies with ISO 9001:2015. NOVOL guarantees that the products which customers receive always have the same performance and efficiency parameters.

All manufacturing processes are controlled by the Processing Laboratory which tests the finished products for compliance with applicable quality standards.



## **Guarantee and security**

### **CUSTOMER BENEFITS**

The leverage of NOVOL's competitive advantage is the delivery of the benefits which meet the key customer requirement: the safety of coating processes.

### **SECURITY OF YOUR INDUSTRIAL COATING PROCESSES**



The packaged solutions from NOVOL include continuous technical assistance, access to laboratory resources, fast complaint handling, a hotline, and 24/7 service care.

Each solution package is tailor-made for strategic customer groups, which include small and medium enterprises.

### **NOVOL WARRANTY SYSTEM**



NOVOL provides each business partner with a 5-year warranty on coating durability. A warranty this long is the written testament of NOVOL's competences as a manufacturer and supplier of high-quality solutions.

The benefits of the warranty are key to the manufacturers, users, and end customers of products with NOVOL coatings. The 5-year warranty requires no costs from the users of our products. Trained and certified production plants are eligible for the 5-year warranty. The warranty requires performance according to the latest product Technical Data Sheets and NOVOL's recommendations. The warranty is also a quality mark of a perfectly planned and delivered coating service.

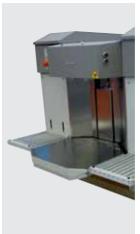




## **Colour mixing system**









#### **NOVOL INDUSTRIAL MIXING SYSTEM**

NOVOL INDUSTRIAL MIXING SYSTEM is a universal colour matching solution designed for the production of small to medium production lots of industrial coats. Each coating product colour can be formulated in mere minutes, which significantly reduces production lead times. The NOVOL Industrial Mixing System is a professional industrial coating colour matching solution, comprising 22 different pigment pastes and more than 25 resin binders to produce diverse topcoat finish formulas: acrylic, polyurethane, epoxy, alkyd coats, and direct topcoats. The pigment pastes are mixed with the required resin types to limit the stock levels and free up cash.

The NOVOL Industrial Mixing System has been designed for batching the colour-mixed components in either of two ways:

- Manual batching with a TECMEC mixer and a SARTORIUS batching scale.
   Here, the pigment pastes to be processed with the mixer are batched manually with a high-precision scale and down to 0.1 g. The batching system features overload protection which adjusts the formula if a pigment is overdosed.
- Automatic volumetric batching in CORAB mixers. This system version batches the pigments to the required resin binder without any intervention of the operator. This increases the colour mixing production output to as much as 2000 litres a day. With the carefully designed pigment pastes, the NOVOL Industrial Mixing System can be processed with most automatic colour matching and mixing equipment.

The TECMEC manual batching system and the CORAB automatic batching system feature gyroscopic mixers for thorough blending of the pigment paste with the resin binders. The benefit is a superior uniformity of the colour with an extremely accurate colour match..



## **Industrial color**







### **MATCHING SOFTWARE**

Complementary to the NOVOL Industrial Mixing System is the Industrial Color matching software platform designed to assist operators in accurate and fast colour matching from NOVOL's colour swatch database. The software displays the required recipes for the manual and automatic colour mixing systems, adjusts the formulas to overdosed pigments, supports a dedicated colour-matching spectrophotometer, and includes the latest technical data sheets and MSDS.

### **INDUSTRIAL SPECTRO**

The NOVOL Industrial Coating Systems feature a breakthrough colour-matching tool: the X-RITE Capsure (RM 200) spectrophotometer. The spectrophotometer features an integrated database of the most popular industrial colour systems (RAL, NCS, and Commercial Vehicles). The spectrophotometer precisely identifies the colour on every scanned surface and matches the exact colour chip from the database. It is easy to use, portable, and USB-powered.

### **INDUSTRIAL COLOR SWATCH**

The NOVOL Industrial Coating Systems include two colour swatch versions. One of them features over 2000 colour chips, chromatically arranged around a colour wheel. The other one features the colour chips arranges by RAL, Commercial Vehicle, Agricultural Machinery, and Fleet systems. The colour swatch solution is an easy way for colour matching to custom requirements.





## Scheme of the INDUSTRIAL ANTI-CORROSION SYSTEM binders

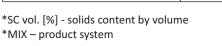


TOPCOATS	PRODUCT DESCRIPTION	SC vol. [%]*	MIX- System*
NOVOPUR 1990 TIX	polyurethan topcoat gloss	≈ 51 ÷ 60 %	YES NEW
NOVOPUR 1090	polyurethan topcoat gloss	≈51÷57%	YES
NOVOPUR 1050 TIX	polyurethan topcoat semi-mat	≈53÷56%	YES
NOVOPUR 1020 TIX	polyurethan topcoat mat	≈53÷57%	YES
NOVOTEC 3090	alkyd topcoat fast dry gloss	≈49÷53%	YES
NOVOTEC 3190	alkyd topcoat fast dry gloss	≈48%	YES
NOVOTEC 3150	alkyd topcoat fast dry semi-mat	≈45%	YES
NOVORUST 2090 DTM #IGH-TECH	polyurethane topcoat gloss	≈58÷61%	YES
NOVORUST 2070 TIX DTM	polyurethane topcoat semi-gloss	≈57÷61%	YES
NOVORUST 2050 DTM	polyurethane topcoat semi-mat	≈58÷63%	YES
NOVORUST 2020 TIX DTM	polyurethane topcoat mat	≈58%	YES
NOVORUST 2750 DTM	epoxy topcoat semi-mat	≈49÷54%	YES
NOVORUST 2550 DTM	alkyd topcoat semi-mat	≈48%÷52%	YES
NOVORUST HYBRID 2290 UHS NEW	polyurea topcoat	≈76%	YES
NOVOCOAT 4090	acrylic topcoat gloss	≈51÷54%	YES
NOVOCOAT 4590 UHS	acrylic topcoat gloss	≈58÷63%	YES
NOVOCOAT 4990 UHS	acrylic topcoat gloss	≈60%	YES
NOVOBASE 5020	basecoat	≈16%	YES
NOVAKRYL 575 "Antygraffiti"	acrylic clearcoat	≈45%	NO
NOVAKRYL 9090 Hydrofobic	acrylic clearcoat	≈42%	YES NEW

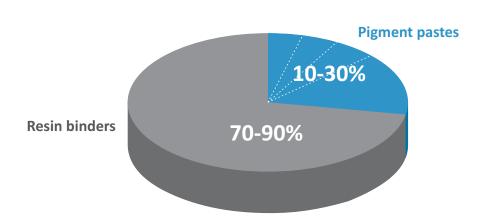


## **Scheme of the INDUSTRIAL ANTI-CORROSION SYSTEM binders**

PRIMERS	PRODUCT DESCRIPTION	SC vol. [%]*	MIX- System*
PROTECT 321 UHS	polyurethane-acrylic filler	≈61%	YES
PROTECT 330	polyurethane-acrylic filler	≈57%	YES
PROTECT 340	wash primer	≈12%	YES
PROTECT 341	epoxy wash primer	≈32%	YES
PROTECT 360 TIX	epoxy primer high-build	≈59%	YES
Protect 361 TIX	epoxy primer high-build	≈47%	YES
PROTECT 365 TIX	epoxy primer high-build	≈59%	YES
PROTECT 366	epoxy primer	≈62%	YES
PROTECT 367 Zn	epoxy primer zinc-rich	≈65%	YES
PROTECT 368 TIX UHS	epoxy primer	≈64%	YES
PROTECT 371	one-component alkyd primer	≈60%	YES
PROTECT 373 UHS	one-component alkyd primer	≈60%	YES



## Resin binder to pigment paste ratios







## **INDUSTRIAL Technology**



Steel / Chassis or Box of Commercial Vehicle



Aluminium / Chassis or Box of Commercial Vehicle



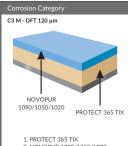
Aluminium; Stainless Steel / Buses



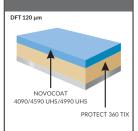
Steel / Trains



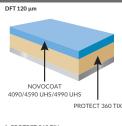
Steel / Wagons



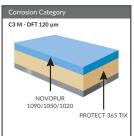
1. PROTECT 365 TIX 2. NOVOPUR 1090/1050/1020



1. PROTECT 360 TIX 2. NOVOCOAT 4090 or 4590 UHS or 4990 UHS



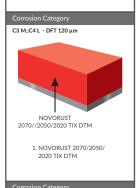
1. PROTECT 360 TIX 2. NOVOCOAT 4090 or 4590 UHS or 4990 UHS

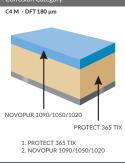


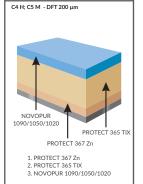
1. PROTECT 365 TIX 2. NOVOPUR 1090/1050/1020

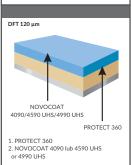


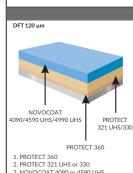


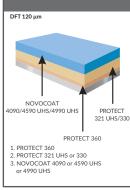


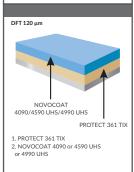


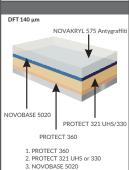




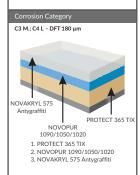


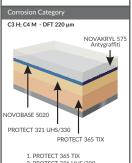








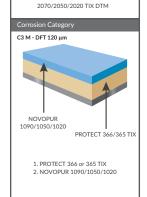






ROTECT 365 TIX	NOVOTEC 3090  PROTECT 371  1. PROTECT 371  2. NOVOTEC 3090
	Corrosion Category
NOVAKRYL 575	C3 L - DFT 120 μm
Antygraffiti	

C3 L - DFT 100 um



NOVORUST

2090 DTM 2070/2050/2020 TIX DTM

1. NOVORUST 2090 DTM

Corro	sion Category	Examples of environment typical for moderate climate ( information only)		
PN-EN	N ISO 12944-2	Interior	Exterior	
C1	very low	Heated buildings with clean air, such as offices, shops, schools, hotels, etc.	None	
C2	low	Buildings not heated, where condensation may occur, such as warehouses and sports halls.	Atmosphere with low pollution. For example in the country.	
C3	middle	Buildings for production with high atmospheric humidity and some air pollution such as food manufacturers, breweries, dairies and laundries.	Urban and industrial areas, moderate sulphur dioxide pollution. Coastal areas with low salt content.	
<b>C</b> 4	high	Chemical manufacturers, swimming baths and shipand boatyards by the sea.	Industrial areas and coastal areas with moderate salt impact.	
<b>C</b> 5	very high	Buildings or areas with almost permanent condensation and with high pollution.	Coast and offshore areas with high salt content.	



## **INDUSTRIAL Technology**







Steel / Container



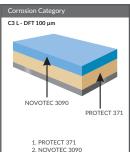
Galvanized Steel / Construction



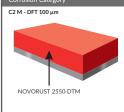
Steel / Construction



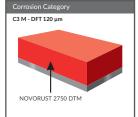
Steel / Construction







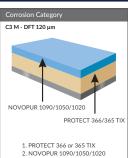




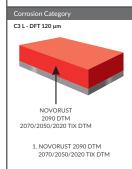
1. NOVORUST 2750 DTM



1. NOVORUST 2550 DTM

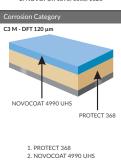


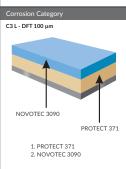


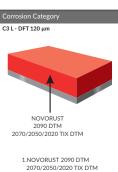


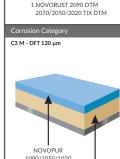




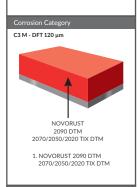


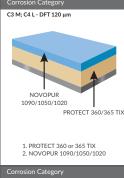


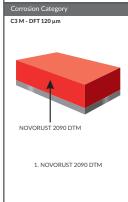


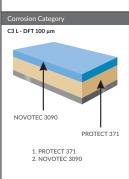


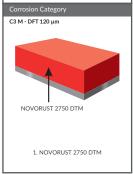


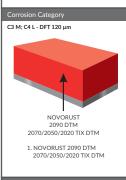


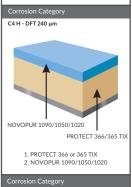


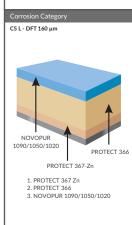














## **NOVOPUR 1020 TIX, 1050 TIX, 1090**

Two component topcoat based on polyurethane resin, hardened with aliphatic isocyanate.

Product available in three gloss versions:

• 1020 - mat

● 1050 – semi-mat

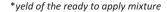
• 1090-gloss

### Advantages:

- excellent efficiency
- perfect hiding power and flowability
- very good chemical resistance
- excellent resistance to atmospheric conditions
- very good mechanical durability

Recommended as a top coat in epoxy and polyurethane systems for road vehicles, farm machinery and steel constructions.

Mixing ratio:	4:1 (1090) 5:1 (1050, 1020)	
Solids content:	approximately 53%	
Efficiency:*	$10$ - $12  \text{m}^2 / \text{l}$ at $50  \mu \text{m}$	
Complementary products:	HARD 10, THIN 50	





More information about Novopur 1090 use and storage in Technical Data Sheet IT-09-70, available on the internet.





More information about Novopur 1050 use and storage in Technical Data Sheet IT-09-71, available on the internet.





More information about Novopur 1020 use and storage in Technical Data Sheet IT-09-72, available on the internet.



## **NOVOPUR 1990 TIX**

Two component, polyurethane topcoat hardened with aliphatic isocyanate. Available in one gloss level:

• 1990 -gloss

#### **Advantages:**

- excellent efficiency
- perfect hiding power and flowability
- very good chemical resistance
- excellent resistance to atmospheric conditions
- very good mechanical durability

Recommended as a top coat for road vehicles, machinery, extrenal surface of tanks and steel constructions.

Mixing ratio:	4:1
Solids content:	approximately 57%
Efficiency:*	10-12 m²/l at 50 μm
Complementary products:	HARD 10. THIN 50

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-75 available on the internet.











## **NOVOTEC 3090**

A one component quick-dry modified alkyd topcoat.

Available in one gloss level:

3090 – gloss

### **Advantages:**

- excellent efficiency
- perfect hiding power and flowability
- good chemical and mechanical resistance
- good resistance to atmospheric conditions
- short drying time: 2 h/20°C

Recommended as a top coat in alkyd systems for road vehicles, farm machinery and steel constructions. Created for production lines of high capacity.



<sup>\*</sup>yeld of the ready to apply mixture



More information about Novotec 3090 use and storage in Technical Data Sheet IT-09-76 available on the internet.



## **NOVOTEC 3150, 3190**

One-component, fast-dry, air-dried alkyd topcoat.

Product available in two gloss variants:

● 3150 - semi-mat ● 3190 - gloss

#### **Advantages:**

- good chemical resistance
- high yield
- perfect hiding power and flowability
- good mechanical resistance
- short drying time: 2 h
- high resistance to weather

Recommended as the topcoat in alkyd coating systems for vehicles, machines, steel structures and outer surfaces of tanks and vessels.

Mixing ratio:	+15%
Solids content:	<b>3190</b> approux 48%; <b>3150</b> approux 45%
Efficiency:*	<b>3190</b> : 9-10 m²/l at 50 μm; <b>3150</b> : 7-8 m²/l at 50 μm
Complementary products:	THIN 50

<sup>\*</sup>yeld of the ready to apply mixture



More information about Novotec 3190 use and storage in Technical Data Sheet **IT-09-87**, available on the internet.





More information about Novotec 3150 use and storage in Technical Data Sheet IT-09-88, available on the internet





industrial







## **NOVORUST HYBRID 2290 UHS**

Polyurea top coat cured with aliphatic isocyanate. Contains anti-corrosion pigments. Available in one gloss level:

### 2290-gloss

### Advantages:

- hydrodynamic and pneumatic aplication
- excellent anti-corrosion properties
- single-layer system "2in1"
- good chemical and mechanical resistance
- reduction of application time by 50%
- stability: at a layer thickness of 200 μm (wet layer)



Mixing ratio:	3:1
Solids content:	approximately 76%
Efficiency:*	7,7 m²/l at 100 μm
Complementary products:	HARD 22

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-90 available on the internet.



## **NOVORUST 2550 DTM**

A one component modified Alkyd Topcoat. Recommended as a one coat system combining anti-corrosion primer and top coat in a single layer. Available in one gloss level:

### • 2550-semi-mat

### **Advantages:**

- high efficiency
- perfect hiding power and flowability
- good anti-corrosion protection
- good mechanical and chemical resistance
- $\bullet$  possibility of application in very thick layers up to 250  $\mu m$  (wet layer)

Recommended as a coating systems for road vehicles, farm machinery and steel constructions. Especially suitable for production line use.

Mixing ratio:	up to 10%
Solids content:	approximately 52%
Efficiency:*	5,2 m²/l at 100 μm
Complementary products:	THIN 50

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-77 available on the internet.









industrial

### **NOVORUST 2020, 2050, 2070 TIX DTM**

Two-component direct polyurethane topcoat hardened with aliphatic isocyanate and with anti-corrosion pigments based on zinc, aluminium and phosphorus oxides. Recommended as a one-layer system which builds a direct topcoat finish with anti-corrosion protection. Product available in three gloss versions:

● 2020 – mat

2050 – semi-mat

2070 – semi-gloss

# HIGH-TECH

### Advantages:

- high yield
- excellent anti-corrosion properties
- VOC-standards compliant
- excellent hiding power and flowability
- good chemical and mechanical resistance
- excellent resistance to weather
- can be applied in extremely thick layers up to 350 μm wet-on-wet

Recommended for coating of utility vehicles, transport vehicles, agricultural machines, industrial machines, and steel structures. Dedicated to high-capacity production lines.

Mixing ratio:	4:1 (2070)	5:1 (2020, 2050)
Solids content:	approximately 60%	
Efficiency:*	5,6 m²/l at 100 μm	
Complementary products:	HARD 10, THIN 50	

<sup>\*</sup>yeld of the ready to apply mixture



More information about Novorust 2070 use and storage in Technical Data Sheet IT-09-82, available on the internet.





More information about Novorust 2050 use and storage in Technical Data Sheet IT-09-83, available on the internet





industria

More information about Novorust 2020 use and storage in Technical Data Sheet IT-09-86, available on the internet



industrial

NOVORUST

## **NOVORUST 2090 DTM EXTRA GLOSS**

Two-component direct polyurethane topcoat hardened with aliphatic isocyanate and with anti-corrosion pigments based on zinc, aluminium and phosphorus oxides. Recommended as a one-layer system which builds a direct topcoat finish with anti-corrosion protection. Available in one gloss level:

### • 2090-gloss

#### **Advantages:**

- high yield
- excellent anti-corrosion properties
- VOC-standards compliant
- excellent hiding power and flowability
- good chemical and mechanical resistance
- excellent resistance to weather
- can be applied in extremely thick layers up to 350  $\mu m$  wet-on-wet

Recommended for coating of utility vehicles, transport vehicles, agricultural machines, industrial machines, and steel structures. Dedicated to high-capacity production lines.

Mixing ratio:	4:1
Solids content:	approximately 58-61%
Efficiency:*	5,6 $m^2/l$ at 100 $\mu m$
Complementary products:	HARD 45, THIN 50

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-81 available on the internet









### **NOVORUST 2750 DTM**

Two-component direct epoxy topcoat with anti-corrosion pigmentation based on zinc aluminium phosphate. Recommended as a single-coat system for topcoat finishing or as an anti-corrosion protection.

The product is available in one characteristics version only:

#### • 2750 - semi-mat

#### Advantages:

- high efficiency
- perfect hiding power and flowability
- good chemical and mechanical resistance
- can be applied in thick layers up to 250 μm wet-on-wet

Recommended as a coating systems for indoor steel structures.

Mixing ratio:	6:1 (H 5960)
Solids content:	approximately 52%
Efficiency:*	5 m²/l at 100 μm
Complementary products:	THIN 60, H 5960

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-84 available on the internet.





### **NOVOCOAT 4090**

Two component full gloss acrylic topcoat hardened with aliphatic isocyanate. Product available in one variant:

### • 4090 - high glass over 90%

#### Advantages:

- highly efficient
- very good chemical resistance
- perfect hiding power and flowability
- very good mechanical resistance

Recommended as a top coat in epoxy and polyurethane systems used for coating buses, trucks, service vehicles and cars, steel structures and outer surface of tanks.

Mixing ratio:	3:1
Solids content:	approximately 53%
Efficiency: *	$10-12  \text{m}^2 / \text{I}  \text{at}  50  \mu \text{m}$
Complementary products:	HARD 10, THIN 50

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-78 available on the internet.







### **NOVOCOAT 4590 UHS**

Two component full gloss acrylic topcoat hardened with aliphatic isocyanate. Low VOC product with less than 420 g/l VOC's. Product available in one variant:

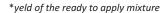
### • 4590 UHS - high gloss over 90 %

#### **Advantages:**

- highly efficient
- high solid content
- perfect hiding power and flowability
- very good chemical and mechanical resistance
- perfect resistance to atmospheric conditions
- 1 and 1/2 layer application

Recommended as a top coat in epoxy and polyurethane systems used for coating buses, trucks, trams service vehicles, cars, steel structures and outer surface of tanks.

Mixing ratio:	5:1
Solids content:	approximately 61%
Efficiency:*	10-12 m²/l at 50 μm
Complementary products:	THIN 50, HARD 45





More information about products' use and storage in Technical Data Sheet IT-09-79 available on the internet.





### **NOVOCOAT 4990 UHS**

 $Two \, component \, full \, gloss \, a crylic \, top coat \, hardened \, with \, a liphatic \, is ocyanate. \, Low VOC \, product \, with \, less \, than \, 420 \, g/I \, VOC's.$   $Product \, available \, in \, one \, variant:$ 

4990 UHS – high gloss over 90 %

### Advantages:

- excellent efficiency
- high solid content
- perfect hidingpower
- very good chemical and mechanical resistance
- excellent resistance to atmospheric conditions
- 1 and ½ layer application
- possibility of application under high pressure

Recommended as a top coat in epoxy and polyure than esystems used for coating trucks, cars, steel structures and outer surface of tanks.

Mixing ratio:	4:1
Solids content:	approximately 60%
Efficiency:*	$11-13\mathrm{m}^2/\mathrm{I}\mathrm{at}50\mu\mathrm{m}$
Complementary products:	HARD 49, THIN 50

<sup>\*</sup>yeld of the ready to apply mixture

More information



about products'
use and storage
in Technical Data
Sheet IT-09-92
available on the internet.







## NOVAKRYL 575 "Antygraffiti"

Two component colorless aliphatically hardened prime coat with "Antigraffiti" properties.

### Advantages:

- suitable for easy removal of graffiti
- excellent flowability
- excellent chemical resistance
- increased scratch resistance (SR)
- fast drying
- easy adaptation to changing application conditions

Designed as a primer for service vehicles, commercial vehicles, farm machinery and steel constructions.

Mixing ratio:	2:1
Solids content:	approximately 45%
Efficiency:*	10,6 m²/l at 50 μm
Complementary products:	THIN 50, HARD 45

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-31





## **NOVAKRYL 9090 Hydrofobic**

Transparent Hydrophobic varnish, with above-average anti-graffiti resistance with properties that facilitate cleaning, hardened with aliphatic isocyanate.

### Advantages:

- suitable for easy remove of graffiti
- easier removal of impurities from the surface Easy Clean
- slippery coating effect Smooth Touch
- increased resistance to icing (Antifrost)
- increased scratch resistance Scratch Resistant (SR)
- excellent flow
- quick drying

Dedicated for painting trains, wagons and other types of transport vehicles.

Mixing ratio:	2:1
Solids content:	approximately 42%
Efficiency:*	$10\text{m}^2$ /l at $50\mu\text{m}$
Complementary products:	THIN 50, HARD 45

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-33 available on the internet.



**NEW!** 

industrial

2+1



### **NOVOBASE 5020**

One-component fast-drying basecoat available in RAL colors. The product is perfect for industrial color paint shops—the coat can be covered with adhesive films in just 15 minutes after the application.

Intended for use with all NOVOL clearcoats.

### **Advantages:**

- excellent hiding power
- high efficiency
- wide range of colors
- adhesive film can be applied in 15 min

Mixing ratio:	1:1
Efficiency:	-
Complementary products:	THIN 50 FAST





More information about products' use and storage in Technical Data Sheet IT-09-85 available on the internet.



### **PROTECT 321 UHS**

Two-component all-purpose acrylic resin based primer with aluminum anti-corrosion pigmentation. Perfect as an interlayer for epoxy-polyurethane systems. When combined with a wash primer, it provides excellent anti-corrosion protection. The product can be applied wet-on-wet or as a sandable coat.

### Advantages:

- acrylic "wet on wet" primer with reduced volatile organic compounds (VOC) content
- perfect hiding power and flowability
- high efficiency
- perfect filling properties
- good chemical and mechanical resistance
- top-coated in 30 minutes at 20°C

Mixing ratio:	5:1
Colors:	beige
Solids content:	approximately 61%
Efficiency:*	
priming version:	10,2 m²/l at 60 μm
wet on wet version:	approximately 17,4 m²/l at 35 μm
Complementary products:	HARD 10, THIN 50

<sup>\*</sup>wydajność mieszanki gotowej do użycia



More information about products' use and storage in Technical Data Sheet IT-09-22 available on the internet.







## **PROTECT 330**

Two component fast drying filling primer, perfect when used as a sealer in epoxy-polyurethane systems. When combined with a reactive primer it provides a perfect corrosion protection system.

Can be used as a "wet-on-wet" system or as a sanding system..

### Advantages:

- perfect hiding power and flowability
- high yield
- perfect filling properties
- good chemical and mechanical resistance
- sandable in 2 h at 20°C

Designed as a primer for service vehicles, commercial vehicles and farm machinery.

Mixing ratio:	6:1
Colors:	white, grey
Solids content:	approximately 57%
Efficiency:*	approximately 7,0 m²/l at 80 μm
Complementary products:	HARD 10, THIN 50

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-12 available on the internet.





## **PROTECT 340**

Reactive passivating-etching primer based on polyvinyl resin, pigmented with zinc phosphate.

### Advantages:

- high yield
- perfect adhesion to numerous substrates
- very good protection for surfaces without proper preparation
- perfect anticorrosion properties

Designed to provide high levels of corrosion protection for service vehicles, commercial vehicles and farm machinery.

Mixing ratio:	1:1
Colors:	red
Solids content:	approximately 12%
Efficiency:*	approximately 12 m²/l at 10 μm
Complementary products:	H 5910

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-14 available on the internet.







## **PROTECT 341**

One-component epoxy-polyvinyl wash primer. The wash primer contains anti-corrosion pigments based on zinc, aluminium and phosporus oxides. It is recommended as an anti-corrosion protection for aluminium, galvanized and steel surfaces. The product can be applied wet-on-wet with topcoats and without a primer interlayer.

#### **Advantages:**

- high yield
- perfect anti-corrosion properties
- perfect adhesion to numerous substrates
- good mechanical resistance
- top-coated in 30 minutes at 20°C

Dedicated for anti-corrosion protection of transport vehicles, machines and devices, steel and aluminum substrates.

Mixing ratio:	20-25%
Colors:	beige
Solids content:	approximately 32%
Efficiency:*	$4,0m^2/l$ at $50\mu m$
Complementary products:	THIN 50







More information about products' use and storage in Technical Data Sheet IT-09-21 available on the internet.



### **PROTECT 360 TIX**

Quick dry, chromate-free epoxy primer, providing excellent anti-corrosion protection and adhesion to various kinds of surfaces.

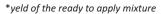
#### **Advantages:**

- excellent anti-corrosion performance on different substrates
- high yield
- perfect hiding power and flowability
- very good chemical and mechanical resistance
- $\bullet$  can be applied in thick layers up to 350  $\mu m$  wet-on-wet

 $Recommended \ as \ a primer \ system \ for \ polyure than e, epoxy \ or \ a crylic \ top coats.$ 

Designed to provide high levels of corrosion protection for service vehicles, commercial vehicles, farm machinery and steel constructions.

Mixing ratio:	4:1 (H5960)	1:1 (H5950)
Colors:	grey	
Solids content:	approximately 59% (H5960) approximately 38% (H5950)	
Efficiency:*		
for 1+1:	approximately 6,3m²/l at 60 μm	
for 4+1:	approximately 7,3m²/l at 80 μm	
Complementary products:	H5960, H5950, THIN 60	





More information about products' use and storage in Technical Data Sheet IT-09-15 available on the internet.





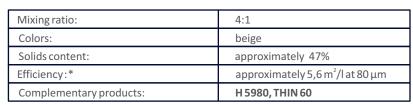


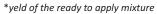
## **PROTECT 361 TIX**

 $High-build\ anticorrosive\ epoxy\ primer\ cured\ with\ polyamide\ adduct.$ 

#### **Advantages:**

- very easy sending after 30 minutes
- great isolation properties
- can be applied in thick layers up to 350 μm wet-on-wet







More information about products' use and storage in Technical Data Sheet IT-09-26 available on the internet.







## **PROTECT 365 TIX**

 $High \ Build \ chromate-free \ epoxy \ primer, \ providing \ excellent \ anti-corrosion \ protection \ and \ adhesion \ to \ various \ kinds \ of \ surfaces.$ 

### Advantages:

- perfect hiding power and flowability
- perfect anticorrosion properties
- very good chemical and mechanical resistance
- $\bullet \ \ can \ be \ applied in thick layers up to 350 \ \mu m \ wet-on-wet$

Recommended as a primer system for polyurethane, epoxy or acrylic topcoats.

Designed to provide high levels of corrosion protection for service vehicles, commercial vehicles, farm machinery, steel construction and outer surface of tanks.

Mixing ratio:	4:1
Colors:	grey, beige
Solids content:	approximately 59%
Efficiency:*	approximately 7,3 m²/l at 80 μm
Complementary products:	H 5960, THIN 60

 $^{st}$ yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-16 available on the internet.







## **PROTECT 366**

Thick epoxy anti-corrosion primer hardened with amine adduct. Recommended as prime layer in epoxy and polyurethane systems.

### **Advantages:**

- perfect hiding power
- perfect insulation properties
- perfect hiding power and levelling
- very good chemical and mechanical resistance

Designated to provide high levels of corrosion protection for means of transport, steel structures and outer surfaces of tanks.

Mixing ratio:	4:1
Colors:	grey
Solids content:	approximately 62%
Efficiency:*	$7.8\text{m}^2/\text{I}\text{at}80\mu\text{m}$
Complementary products:	H 5966, THIN 60

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-24 available on the internet.





## PROTECT 367 Zn

Anti-corrosion epoxy primer. Highly pigmented with zinc powder, hardened with amine adduct. The zinc powder content in the dry coat is 90%. Recommended as prime layer in epoxy and polyurethane systems.

### **Advantages:**

- whighly resistant to corrosive action of marine and industrial air
- fast drying
- suitable for application in thick coats
- very good mechanical resistance
- very good chemical resistance
- highly resistant to transient temperatures of up to 160°C

Designated to provide high levels of corrosion protection for chemical, petrochemical industry; means of transport, outer surfaces of tanks and steel structures.

Mixing ratio:	8:1
Colors:	metallic grey
Solids content:	approximately 65%
Efficiency:*	approximately 5,9 m²/l at 80 μm
Complementary products:	H 5960, THIN 60

<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-23 available on the internet.







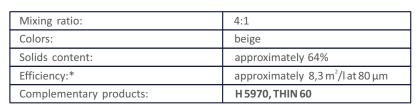
## **PROTECT 368 TIX UHS**

Anti-corrosion epoxy primer UHS with high solid particle content hardened with amine adduct.

### **Advantages:**

- excellent performance due to high solids content
- perfect for the "wet on wet" method
- very good flow
- excellent adhesion to various substrates
- very good high pressure, electrostatic application
- excellent anti-corrosion properties
- perfect insulation properties
- very good mechanical resistance

Recommended as a primer system for polyurethane, epoxy or acrylic topcoats. Designated to provide high levels of corrosion protection for means of transport, steel structures and outer surfaces of tanks.



<sup>\*</sup>yeld of the ready to apply mixture



More information about products' use and storage in Technical Data Sheet IT-09-17 available on the internet.



# HIGH-TECH



industrial

## **PROTECT 371**

One component quick-dry modified alkyd primer, based on alkyd resin. Recommended as prime layer in alkyd systems.

### Advantages:

- high yield
- good filling properties
- can be applied in thick layers up to 350 µm wet-on-wet
- good mechanical resistance
- top-coated in 30 minutes at  $20^{\circ}C$

Intended for coating service vehicles and farm machinery. Created for production lines of high capacity.

Mixing ratio:	+20%
Colors:	grey, red, black
Solids content:	approximately 60%
Efficiency:*	approximately 7,5 m²/l at 80 μm
Complementary products:	THIN 50

<sup>\*</sup>yeld of the ready to apply mixture

More information about products' use and storage in Technical Data Sheet **IT-09-18** available on the internet.









## **PROTECT 373 UHS**

One-component, fast-drying modified alkyd resin based primer in UHS quality. Recommended as a base layer in alkyd systems.

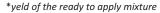
#### **Advantages:**

- high performance
- possibility of applying thick layers up to 200 μm wet
- good mechanical strength
- high solids content 60% by volume

Intended for painting commercial vehicles and agricultural machines.

Dedicated to high capacity production lines.

Mixing ratio:	ready-to-spray primer
Colors:	grey
Solids content by volume:	approx. 60%
Efficiency:*	approximately 7,5 m²/l at 80 μm
Complementary products:	THIN 50





More information about products' use and storage in Technical Data Sheet **IT-09-27** available on the internet.





## **GRAVIT 692**

Soundproofing mass. Product based on waterborne resin.

### **Advantages:**

- high performance
- high flexibility
- good soundproofing properties
- does not contain asphalt and bitumen
- flame-retardant product compliance with the PN EN 45545 standard
- possibility of application up to  $6000 \, \mu m$  wet in one layer
- has a Certificate of Conformity of the Institute of Rail Vehicles "Tabor"

Dedicated for transport vehicles, machines and devices.

Colors:	darkgrey
Solids content:	approximately 53%
Efficiency:	$0.5\text{m}^2/\text{I}$ at $1000\mu\text{m}$
Flame-retardant product:	The material meets the requirements of R1 and R7 standards PN-EN 45545-2:2013+A1:2015 for the hazards level of HL1, HL2



More information about products' use and storage in Technical Data Sheet IT-09-42 available on the internet.







## **UNI - UNIVERSAL PUTTY**

A basic filling putty with low flexibility, recommended mainly for mechanical processing and small surfaces. It has good adhesion to various substrates, it is not recommended for use on galvanized steel.

### Advantages:

- good filling properties
- possibility of applying thick layers
- good machine operation
- good adhesion to various substrates
- quick access to grinding

Dedicated for transport, viehicles machines and devices.





More information about products' use and storage in Technical Data Sheet IT-09-01 available on the internet.



## **TECH PLUS 1 UNISOFT**

A very versatile soft filling putty. Intended for application in thick layers, it perfectly fills even larger defects. The putty is soft and good for manual and power sanding. The product adheres very well to various substrates, including galvanized steel. Its high elasticity minimises the risk of cracking on large surfaces. Fast curing reduces the repair time.

### Advantages:

- soft sanding
- good filling power
- application of thick layers is possible
- good adhesion to numerous substrates
- quickly sandable

Dedicated for paint coating of vehicles, machines and equipment.





More information about products' use and storage in Technical Data Sheet IT-09-04 available on the internet.



## **TECH PLUS 2 ECO**

Industrial polyester putty.

Basic filling putty from a series of economical products. Relatively hard and less flexible, recommended mainly for mechanical processing, but also for use on small surfaces.

### Advantages:

- good filling properties
- possibility of applying thick layers
- good machinie operation
- good adhesion to various substrates
- quick access to grinding
- very smooth surface after sanding
- reduced weight compared to standard putties

Dedicated for paint coating of vehicles, machines and equipment.





More information about products' use and storage in Technical Data Sheet IT-09-10 available on the internet.

## **TECH PLUS 3 LONG LIFE**

Industrial putty intended for levelling large surfaces. Provides a long potlife and its consistency allows very easy application. After hardening, it facilitates very easy mechanical processing.

### Advantages:

- easy application on large surfaces
- long application life
- good machine sanding

Color: grey.

Dedicated for paint coating of vehicles, machines and equipment.



More information about products' use and storage in Technical Data Sheet IT-09-06 available on the internet.





## **TECH PLUS 5 ECONOMY**

Universal industrial polyester putty.

A filling putty with a very wide range of applications. Designed for the thick application, perfectly evens out very deep damage. The putty is soft, you can use it

be processed both manually and mechanically. It has very good adhesion to various types substrates, including galvanized steel. High flexibility minimizes the risk of cracking even on large surfaces. Fast curing reduces repair time.

#### Advantages:

- very good strength parameters
- good elasticity
- easy and soft processing
- recommended for use in deeper dents
- good adhesion to a various substrates
- quick access to grinding

Dedicated for paint coating of vehicles, machines and equipment.



More information about products' use and storage in Technical Data Sheet IT-09-09 available on the internet.

### **TECH PLUS 6 FIBER**

Universal industrial polyester putty with glass fibre.

FIBER - putty reinforced with glass fiber. Thanks to the use of special resins polyester and short glass fiber has very good strength parameters combined with good flexibility. It is also characterized by a light and soft treatment, recommended for for use in deeper dents and large areas. The putty has a good adhesion to a various substrates, in particular to galvanized steel.

### **Advantages:**

- very good strength parameters
- good elasticity
- easy and soft processing
- recommended for use in deeper dents
- good adhesion to a various substrates
- quick access to grinding

#### Color: beige.

 $Created \ for \ levelling \ surfaces \ of \ carriages, buses, machines.$ 



More information about products' use and storage in Technical Data Sheet IT-09-08 available on the internet.







## **PLUS 951 – ACCELERATING AGENT FOR BASECOATS**

PLUS 951 is an accelerating agent for the NOVOBASE 5020 basecoats which improves hardness and chemical resistance, and accelerates drying.



More information about products' use and storage in Technical Data Sheet IT-09-62 available on the internet.





## **PLUS 952 – STRUCTURAL ADDITIVE**

PLUS 952 is a structural additive formulated with glass microspheres. The product has an appealing texture ("sand grain effect") with good abrasion resistance. The structural additive is fully compatible with all the resins of the 1K and 2K topcoats from the NOVOL INDUSTRIAL mixing system.

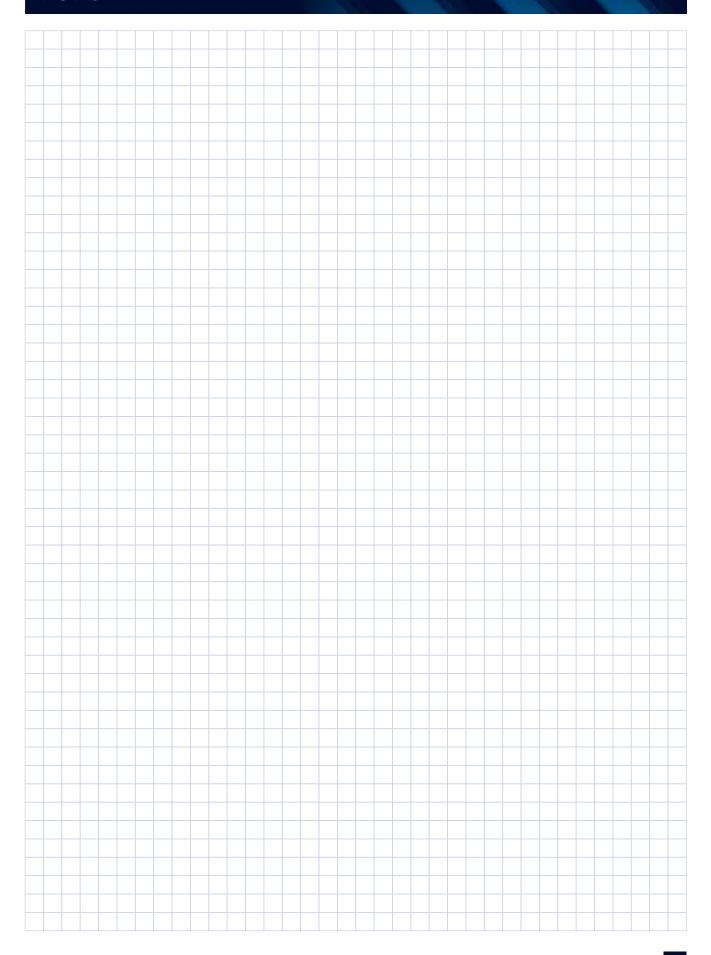


More information about products' use and storage in Technical Data Sheet IT-09-63 available on the internet.



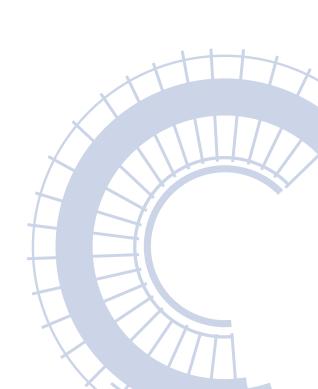


## **NOTES**











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**NOVOL Sp. z o.o.** • PL 62-052 Komorniki • ul. Żabikowska 7/9 • tel. (+48) 61 810 98 00 facebook.com/novolPL

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