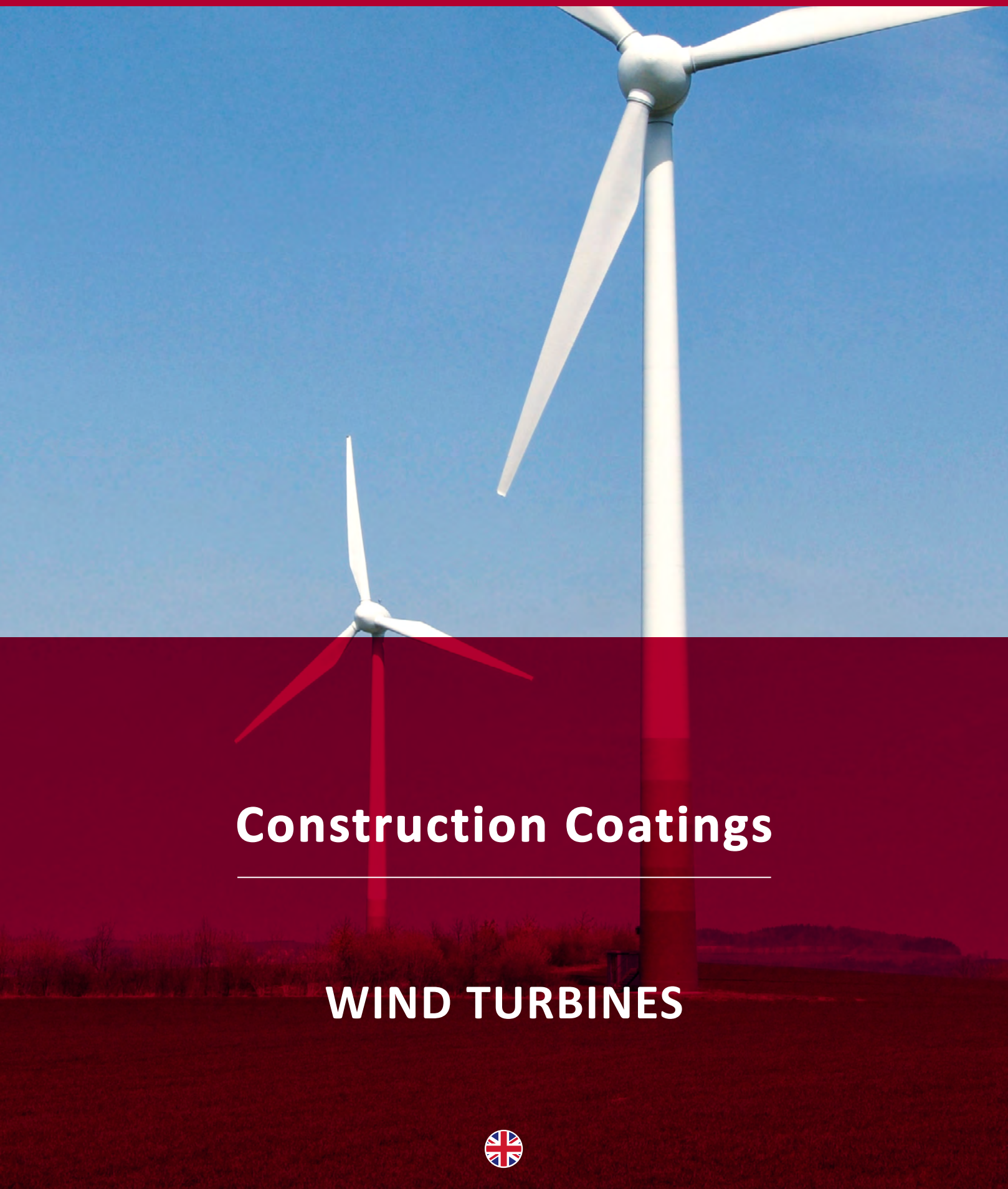
novatic®
THE COLOR COMPANY



# Construction Coatings

## WIND TURBINES

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# We are your specialist for wind turbine coatings

**Initial situation**
necessary & future-oriented

Wind energy has been used since the earliest history. Also nowadays wind energy plays an important rule as renewable energy source. Furthermore the importance of this type of energy will even more correlate positively in future. The object is therefore: The major part of electricity should be generated from sustainable energies. To realise this goal, an increasing support was implemented towards research projects in the energy field.

**Requirement**
efficient & consistent

Usual wind turbines have rated a service-life of more than 20 years. Beside the considered choice of the components of a wind turbine, also the protection of the surface, permanently demanded by environmental influences, should be thought over carefully.

Even the coating of the single parts of a wind turbine, starting from the tower up to the rotor blades, is a major prerequisite for stability and therefore significant for the efficiency of the plant. Furthermore the coating also causes an aesthetic appearance.

**novatic®-service**
comprehensive & practical

For many years we are engaged intensely with the development of coating systems for the protection of wind power systems. Over the past ten years this led to individual systems, which were eligible for patent protection. We are able to offer components for all kind of coating systems.

Thereby we always focus on the practicality in processing and continuity of the development of our products. It is a challange for us to meet the special desires of our customers, which we try to satisfy totally – Challenge us.

On the following pages you will find system recommendations for the various elements of wind turbines. The listed coating systems are only a selection of our manifold portfolio. It would be a pleasure for us to also provide you an individual system according to your specific requirements and processing conditions.

Our products are available in all common colour shades (e.g. RAL), as well as colours on special request.

Talk to us – We would be pleased to support you.



# Our system for concrete towers



There are high demands on coating systems for wind power systems, made out of concrete, to meet the requirements of extreme external conditions.

Our coating systems are able to provide a durable protection of the surface against atmospheric demands, due to their exceptional good adhesion, the high weather resistance and the colour stability.

The application of the coating system on concrete requires an orderly surface preparation according to technical knowledge. Remarks in detail are included in our technical data sheets.

As a first coat, after the surface preparation, dresco-Tissue adhesive should be applied, in which a special fleece will be embedded. After of a second layer of the adhesive the system gets finalised with a waterborne two component top coat.

## Structure of Layers*

*four work steps

| Brand name | Product name | Dry film thickness (µm) |
|---|---|---|
| dresco-Tissue adhesive | GK01 | 250 |
| dresco-Special fleece | GV02 | - |
| dresco-Tissue adhesive | GK01 | 250 |
| dresco-2C-PUR-Top Coat wv | BD70 | 100 |
| **Sum** | | **600** |



We have already applied this coating system on more than 4.000 wind turbines. It shows an excellent adhesive tensile strength. Therefore the tower is steadily protected against environmental influences.



# Our systems for towers made out of steel

Also for towers made out of steel there are special requirements to protect them from corrosion. Therefore we provide systems for external and internal surfaces protect them durably from corrosion on one hand and on the other hand to correspond to all desired decorative requirements. In this regard we offer solvent-containing and solvent-free products. These are categorized by the brands **solvatic** or **aquatic**.

## Structure of Layers*

**three variations for external coating with three work steps each and one version for internal coating with one work step*

### External coating

| Corrosive category | Primer Product | DFT (µm) | Intermediate coat Product | DFT (µm) | Top coat Product | DFT (µm) | Sum in µm |
|---|---|---|---|---|---|---|---|
| C5-M | ZG97 | 140 | - | - | ZD57/58 | 100 | 240 |
| C5-M | MG46 | 60 | ZG97 | 140 | ZD57/58 | 80 | 280 |
| C4 | ZG97 | 120 | - | - | ZD57/58 | 80 | 200 |
| C4 | MG46 | 60 | ZG97 | 120 | ZD38 | 60 | 240–320 |

Regarding the gloss it has to be decided if if silk-matt ZD58 or glossy ZD57. With pleasure we are available to you for questions.

### Internal coating

| Corrosive category | Primer Product | DFT (µm) | Intermediate coat Product | DFT (µm) | Top coat Product | DFT (µm) | Sum in µm |
|---|---|---|---|---|---|---|---|
| C3 | ZG97 (Monolayer) | 140 | - | - | - | - | 140–200 |

These variations are customized. The range of film thickness is depending on the demand. With pleasure we develop a tailor-made coating system for your wind energy plant complying with your individual requirements.



# Our system for rotor blades



Wind turbine rotor blades have to withstand high mechanical loads (weather resistance and colour stability).

The better the rotor blades are protected by the coating system, the less maintenance is needed and therefore the whole turbine may be operated more efficiently.

Also in this connection our brands **solvatic** and **aquatic** may be used. We offer filler for shaping (SP21) and for filling and smoothing (SP22) depending on the technological base regarding the direct coating and also for the in-mould method. Documented in the following structure of layers.

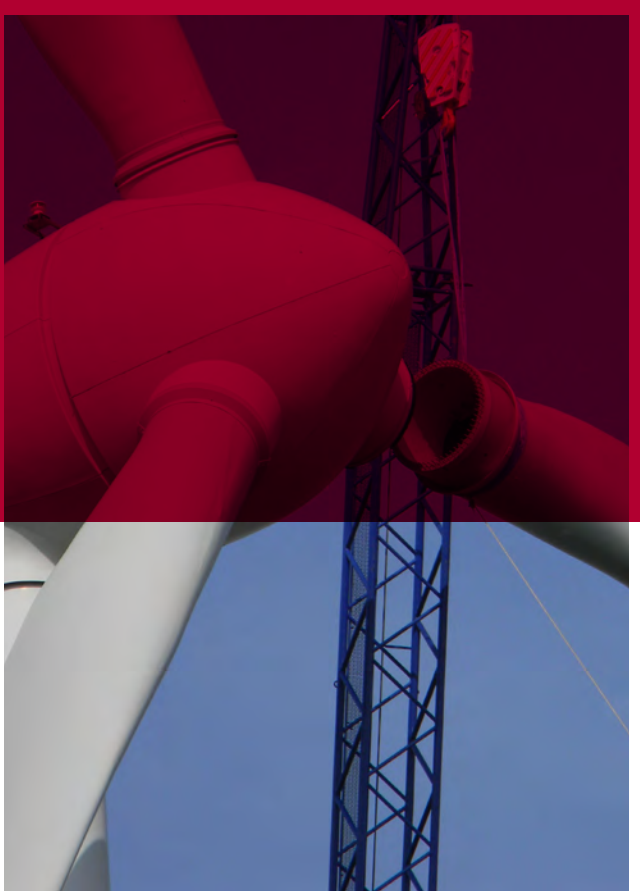
## Structure of layers*

**three work steps*

| **Primer** | | **Intermediate coat** | | **Top coat** | |
|---|---|---|---|---|---|
| Product | DFT (µm) | Product | DFT (µm) | Product | DFT (µm) |
| ZG58 | 200 | SP21 | - | ZD58 | 100 |











## Your benefits at a glance

- certified provider
- patented systems
- system selection
- environmentally friendly and solvent-free products
- durable weather- and corrosion protection
- durable colour stability of the top coat
- colour variety
- easy processing regarding praxis-relevant techniques
- low number of layers – cost-efficient protection systems
- continuous dialog for the selection optimized protection systems and their procession

**1990** Power station coatings

**1994** Heavy-duty corrosion protection Sheet 87 & Introduction of water-soluble paints

**2003** Inclusion of special developments for wind energy systems and implementation of protection systems

**2004** Introduction of dipping paint dilutable with water

Our products are used by well-known clients – both, inside and outside Germany. We would be pleased to also be a reliable partner also for you.

We put great emphasis on proximity to our customers, flexibility, service, continuous development work and the permanent dialog with you, as our customers.

Since 2007 our name has shown the trendsetting quality of our products. Thereby of our work therefore is competence and experience. Nowadays more than 200 high qualified employees characterize the values appreciated by our customers: quality, professional consultancy, short delivery periods and profitability.

The quality of our work is proven by our certification after DIN EN ISO 9001 and DIN EN ISO 14001

We would be very pleased to also cooperate with you in future. We would like to contribute to be successful together with you on the future marketplace.





**2006** Introduction of solvent-free coating materials

**2007** Patent concrete tower coating

**2012** Introduction of rotor blade coating

**2013** Inner tank coating with food approval

**2014** Introduction of solvamix® industrial coatings and solvamix-OEM automotive coatings



novatic®
THE COLOR COMPANY

Our name stands for high-quality, innovative and sustainable **paint and coating systems** for **protective coatings**, **construction coatings**, **industrial coatings**, **automotive coatings** and **decorative coatings**, which have been proven and established in each business segment in the world market.

**We are at your disposal for all matters.**

**Contact us. We look forward to supporting you.**

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Notes

**Picture credits**

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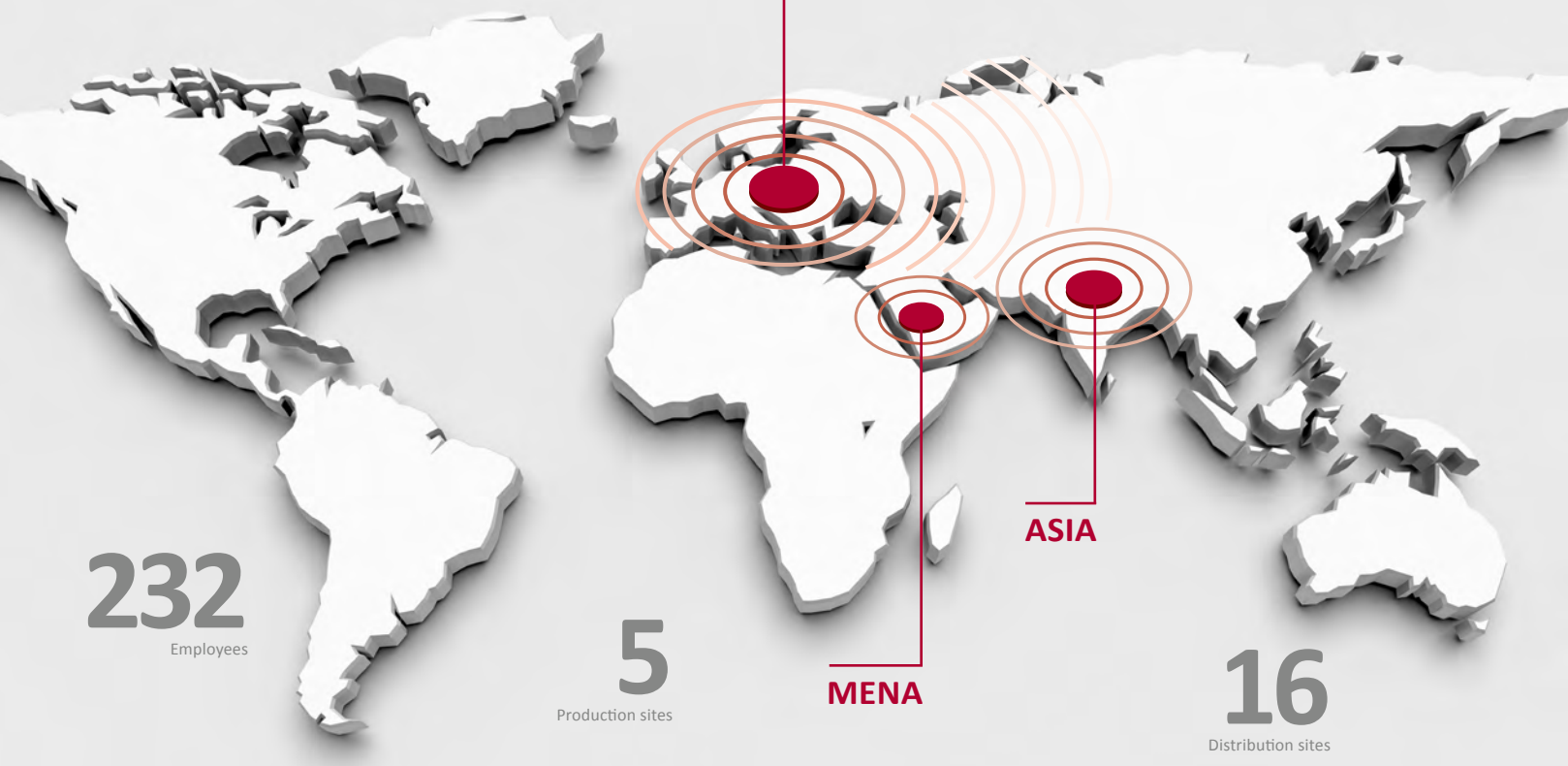
**14,300,000** kg
Paint production per year

**53**
Exporting countries




**232**
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**5**
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**16**
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