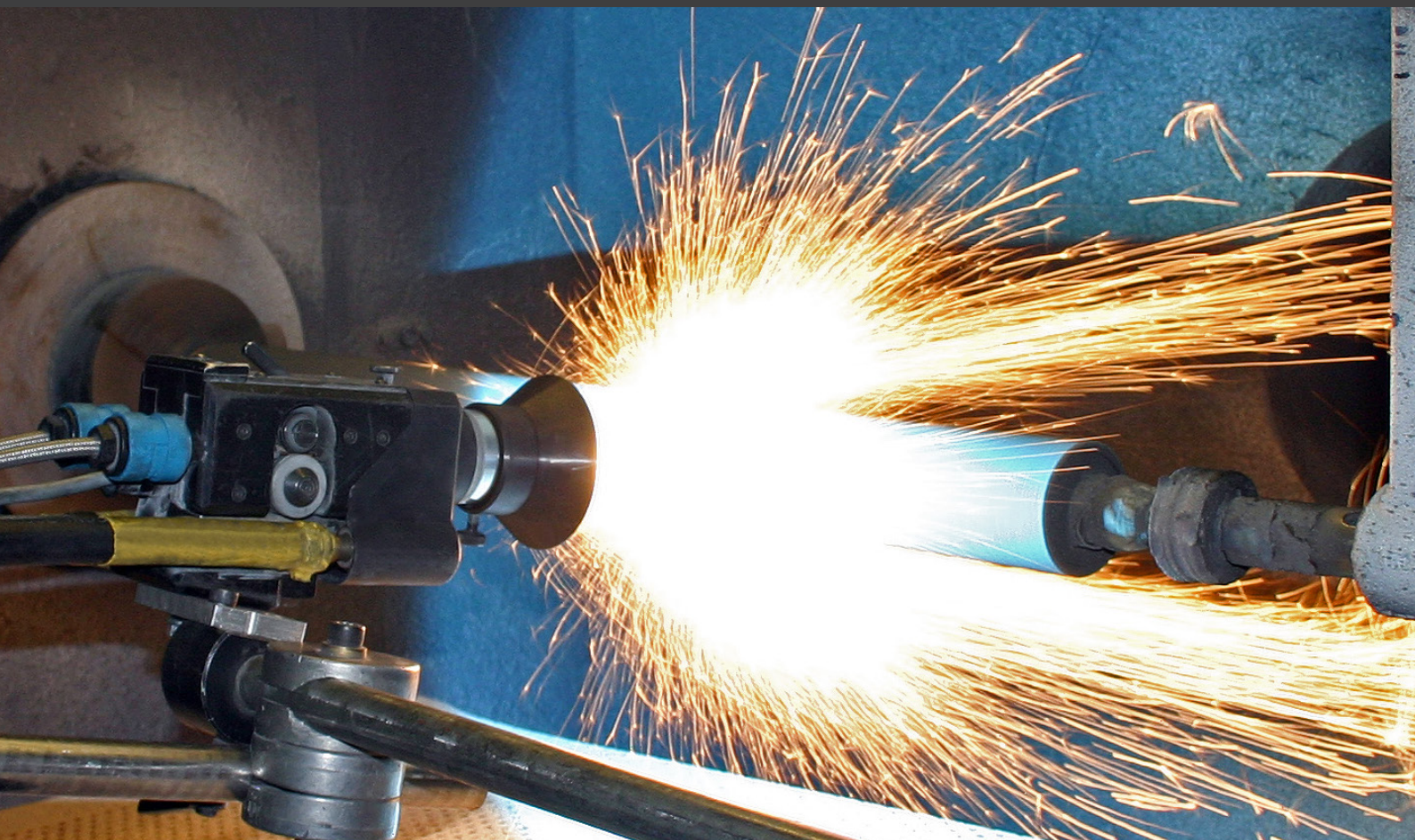


SEALERS FOR

THERMAL SPRAY COATINGS

dichtol



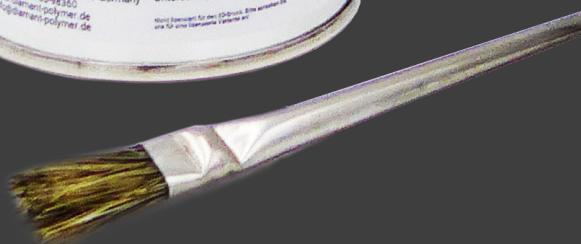
Capillary Deep Impregnation

Permanent Protection For Porous Structures

DIAMANT
POLYMER SOLUTIONS



2



RELIABLE PROTECTION FOR YOUR THERMAL SPRAYED LAYERS

DIAMANT sealers close open porosities liquid and gas tight

Thermal sprayed layers have pores that make them susceptible to corrosion. Consequence: Aggressive gases or liquids can penetrate through these porous structures leading to oxidization on the substrate. A possible and unsightly effect of this undermining corrosion is the flaking or failure of the thermal spray coating.

DIAMANT sealers close those open pores in thermal spray layers and thus help to build a permanent corrosion protection barrier.

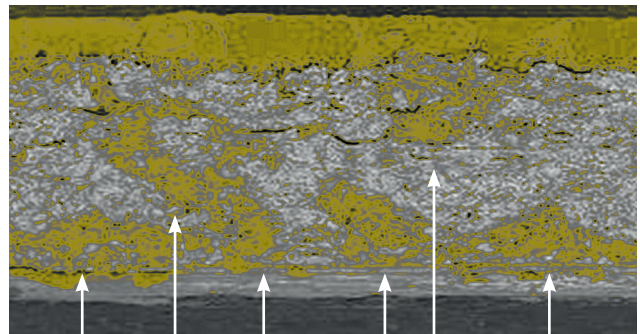


CAPILLARY DEEP IMPREGNATION

DIAMANT sealers penetrate deeply into the thermal spray layers ensuring long-lasting protection

Our sealers are specially designed for use on thermally sprayed coatings and customized to provide an individualized solution rather than an off-the-shelf product. All our products are developed and manufactured without exception at our location in Germany. This guarantees for highest quality and individually adapted function.

DIAMANT sealers penetrate deep into the coating layers for permanent protection. Through this deep capillary impregnation we offer a system that works without a vacuum by simply brushing, spraying or dipping. Dichtol automatically penetrates into the pores and closes them. Deep penetration is important in order to ensure permanent protection even in the event of wear or subsequent processing.



3

with **Dichtol**
sealed ZnAl layer

All DIAMANT sealers
meet the DIN standards



DIN EN ISO 14924
DIN EN ISO 2063-1
DIN EN ISO 2063-2

Member of the community
for thermal spraying e.V.



THE RIGHT SEALER FOR EACH PROJECT

Our sealers are as diverse as your coatings

The times of all-purpose glue and universal grease are history. Today's world demands special solutions in order to meet specific requirements. At **DIAMANT** we provide specially designed sealing materials for your coating needs, as required by DIN EN ISO 14924.

Together with you, we will adapt our basic formulations to your coating specifications. You get a high-performance sealer system that offers maximum performance and protection. No matter which process you use or which materials are sprayed, we always have the right sealant for you!

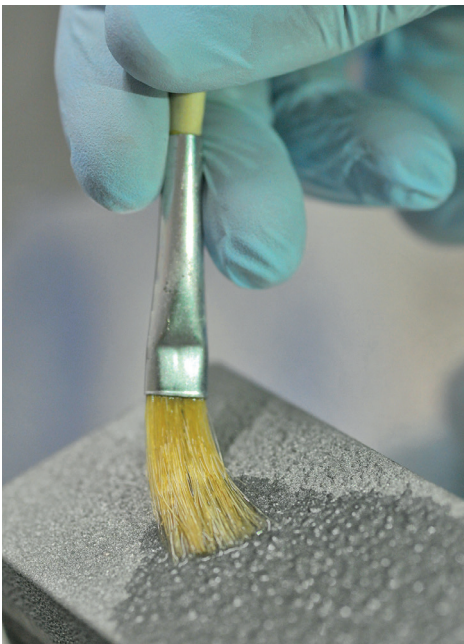
PROCEDURE			
APS	HVOF	LDS	Wire flame spraying
Detonation syringes	Cold gas spraying	Laser spraying	Powder flame spray

SEAL			
to achieve special surface properties *	for hydraulic and pneumatic applications	to improve the corrosion resistance	to influence the Friction and sliding properties

* electrical insulation, non-stick properties, wetting or non-wetting, optical properties

GUARANTEED FUNCTION, PROVEN RESULTS

We not only supply highly specialized sealers, but also provide proof of functionality

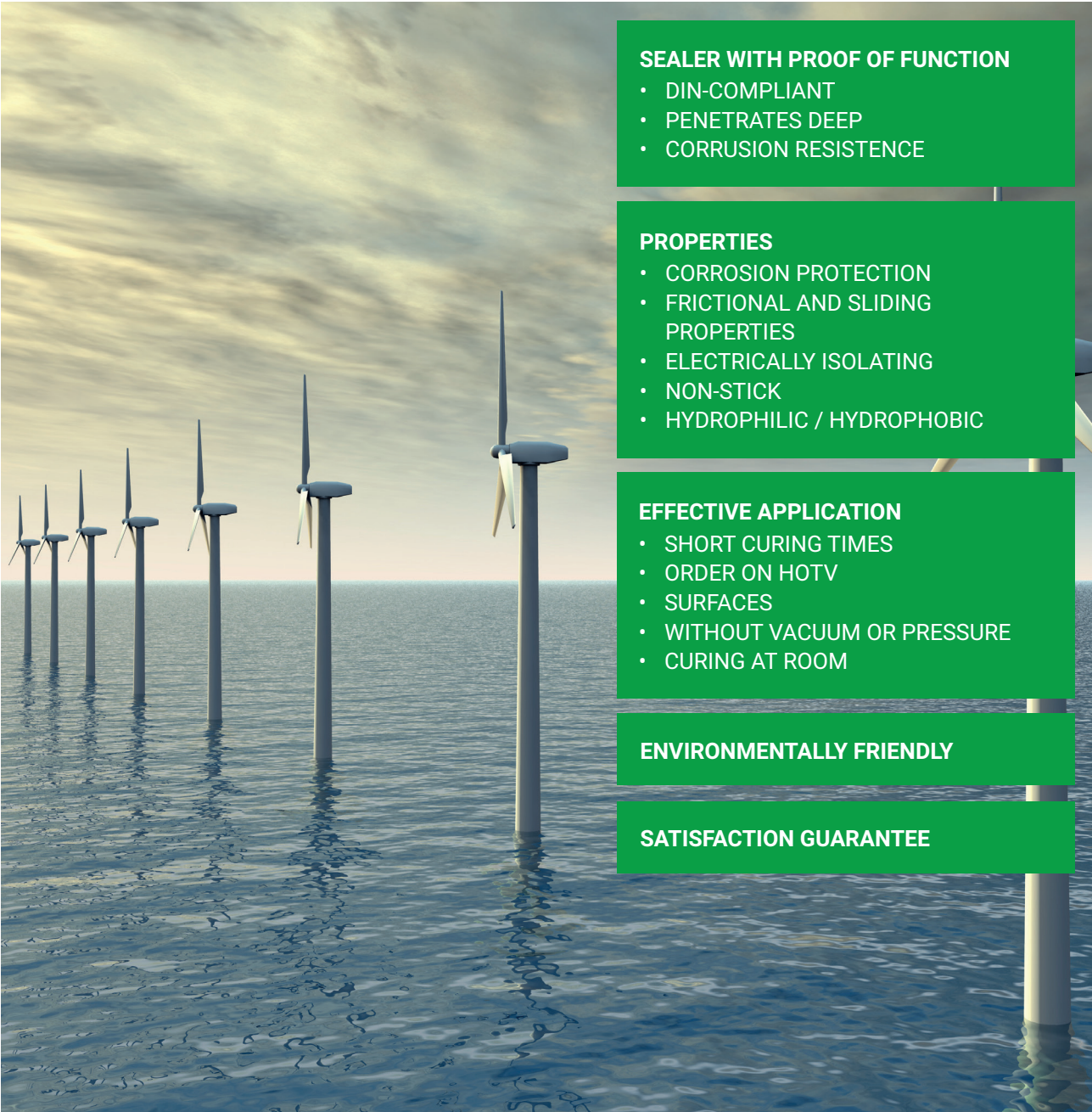


The function of a sealer is influenced by many parameters. Coincidence and good feeling are definitely not one of them. We will instead choose the right sealer for you on facts and exact measured values. For this purpose, we have developed our own in-house testing and qualification procedures with real added value. Our PERM test shows the penetration depth of the sealer in your coating layers.

The GAPO test allows a quick statement on the corrosion resistance. Supported by further in-house measurements, this enables a precise statement on how the sealer is performing in connection with the respective coating method and where there is potential for improvement.

We are only satisfied when you are. That is why the systems will be adapted until we have found the optimal solution for you.

That is the DIAMANT satisfaction promise.



SEALER WITH PROOF OF FUNCTION

- DIN-COMPLIANT
- PENETRATES DEEP
- CORRUSSION RESISTENCE

PROPERTIES

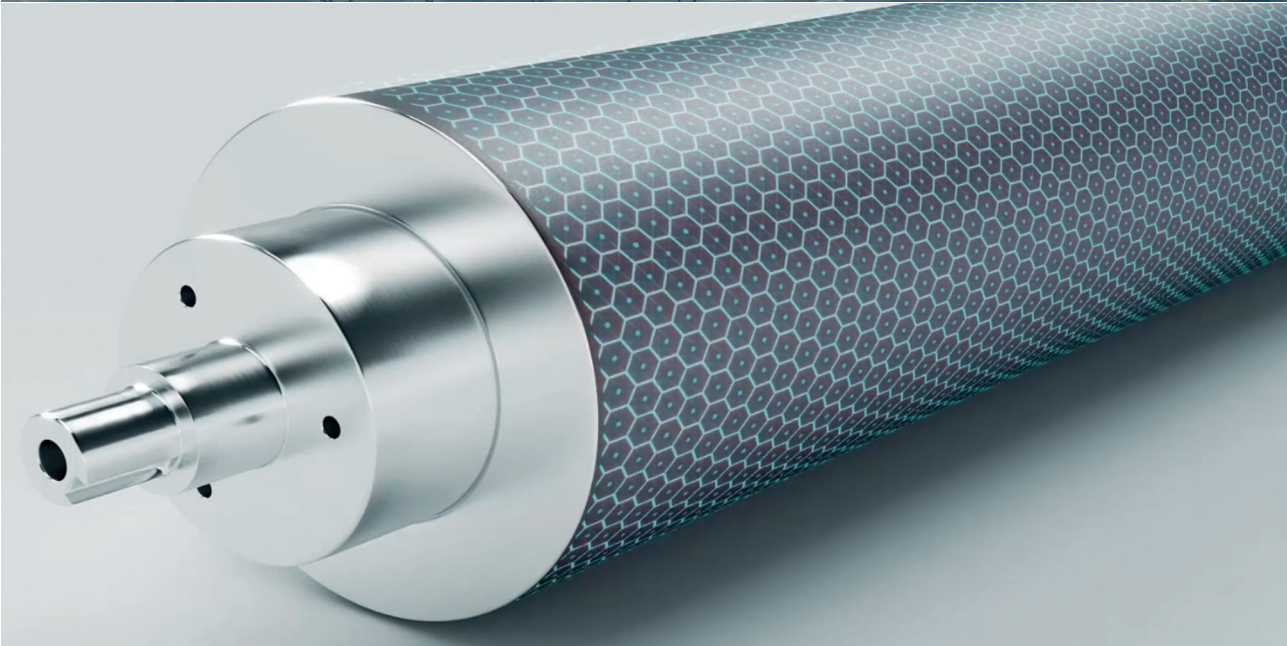
- CORROSION PROTECTION
- FRICTIONAL AND SLIDING PROPERTIES
- ELECTRICALLY ISOLATING
- NON-STICK
- HYDROPHILIC / HYDROPHOBIC

EFFECTIVE APPLICATION

- SHORT CURING TIMES
- ORDER ON HOTV
- SURFACES
- WITHOUT VACUUM OR PRESSURE
- CURING AT ROOM

ENVIRONMENTALLY FRIENDLY

SATISFACTION GUARANTEE



SELECTION GUIDE / OVERVIEW OF STANDARD SEALERS

Did not find what you are looking for?

Contact us, we will find the right sealer for your application!

Product Name	Prod.-No.	Recommended Area of Application				Typical Application / Description	Characteristics	Colour	Base	
		HVOF	APS	ARC, LDS	Flame					
dichtol WFT Concentrate	0932					Can only be used diluted (1285)	Concentrate	transparent	Acrylate	
dichtol WFT Makro	1546					Corrosion protection. Simple application, 1-component, ready-to-use. Drinking water and food approval	Increased Solid	transparent	Acrylate	
dichtol WFT Makro Spray	2088						Spray Bottle	transparent	Acrylate	
dichtol WFT	1532						Low Solidchr	transparent	Acrylate	
dichtol WFT Spray	2087						Spray Bottle	transparent	Acrylate	
dichtol WFT Slow	2507						Warm climate, large surfaces	Slow Ventilation	transparent	Acrylate
dichtol HTR Concentrate	1388						Can only be used diluted (1285)	Concentrate	transparent	Silicone
dichtol HTR	0977					Corrosion protection for high temperature. 1-component, ready-to-use	Low Solid	transparent	Silicone	
dichtol HTR Blue	2501					Evaporator tubes	Color for better visibility	blue	Silicone	
dichtol WF49 Concentrate	1849					High viscosity, thinner 1285	Concentrate	yellowish	PURE	
dichtol WF49-3	2181					Corrosion protection, 1-component, ready-to-use	Resistant to solvents	transparent	PURE	
dichtol WF49-2	2182						Resistant to solvents	transparent	PURE	
dichtol WF49-1	2180						Resistant to solvents	transparent	PURE	
dichtol Hydro	1524					Corrosion protection, 1-component	Water base	transparent	Acrylate	
dichtol WAX	2547					Good non-stick properties	Melt wax	White	Wax	
dichtol HM	2407					Anilox rollers, large components and surfaces. 2-component	Apply on hot surfaces	Light yellowish	Epoxy resin	
dichtol HM-RT	2510						Fast curing	Yellowish	Epoxy resin	
dichtol HTWG Hydro	2506					1-component, ready-to-use	High temperature resistance	transparent	Inorganic	
dichtol HTWG-S	2505					1-component, ready-to-use	Fast curing	transparent	Inorganic	
dichtol HTR HS	2530					1-Component, ready to use Good electr. isolation	High solid, no solvents	transparent	Silicone	
dichtol HTR HS AS	2531						Like 2530 with anti-stick characteristic	transparent	Silicone	
dichtol HTR HS 50S	2532						Like 2530 for small pores	transparent	Silicone	
dichtol UVDC-1	2536						Fast UV curing	transparent	PU acrylate	
dichtol UVDC-2	2537						Fast UV curing	transparent	PU acrylate	

The table shows an extract from our complete product portfolio. All products come out of our own production. Dichtol is available exclusively from the manufacturer. Benefit from over 60 years of experience in the field of metal impregnation. Quality *Made in Germany*.

You can reach our service on **+49 2166 - 98 36 - 0** or by email: **info@diamant-polymer.de**

Solvent	Solid [% By weight]	Viscosity [mPas]	Density [g/cm ³]	Max. Operating Temp °C (°F)	Max. Application Temp °C (°F)	Surface drying at 20°C (68 °F)	Suitable Pore size Small / Medium / Large	Flexibility * = low ** = middle *** = high	Chemical resistance* ²		
									Acids	Bases	Solvent
Yes	43	610 mPas	0,93	300 (572)	30 (86)	12 min	–	**	**	**	–
Yes	25	34	0,90	300 (572)	30 (86)	6 min	L	**	**	**	–
s.o.	25	34	s.o.	300 (572)	30 (86)	6 min	L	**	**	**	–
Yes	10	12	0,88	300 (572)	30 (86)	6 min	S	**	**	**	–
s.o.	10	12	s.o.	300 (572)	30 (86)	6 min	S	**	**	**	–
Yes	11	14	0,96	300 (572)	50 (122)	12 min	S	**	**	**	–
Yes	48	75	1,02	500 (932)	30 (86)	50 min	–	**	**	**	*
Yes	22	14 mPas	0,89	500 (932)	30 (86)	45 min	S	**	**	**	*
Yes	22	16 mPas	0,95	500 (932)	30 (86)	45 min	S	**	**	**	*
Yes	61	250	1,07	120 (248)	30 (86)	45 min	S	**	**	**	***
Yes	20	60 mPas	0,94	120 (248)	30 (86)	43 min	L	**	**	**	***
Yes	15	40 mPas	0,92	120 (248)	30 (86)	40 min	M	**	**	**	***
Yes	12	20 mPas	0,91	120 (248)	30 (86)	38 min	S	**	**	**	***
No	27	60 Mpas	1,01	200 (392)	40 (104)	40 min	L + M	**	**	**	**
No	100	fest	0,91	70 (158)	80 (176)	–	L	***	**	**	**
Yes	84	75	1,05	200 (392)	120 (248)	20 h	L + S	***	***	***	***
Yes	85	220	1,04	200 (392)	60 (140)	60 min	L + M	**	**	**	**
Yes	37	120 mPas	1,22	700 (1292)	40 (104)	12 h	M	*	***	***	***
Yes	32	110 mPas	0,89	700 (1292)	40 (104)	6 h	M	*	***	***	***
No	98	140 mPas	1,14	500 (932)	40 (104)	15 min	L + M	***	***	***	**
No	98	140 mPas	1,14	500 (932)	40 (104)	15 min	L + M	***	***	***	**
Yes	52	60 mPas	1,00	500 (932)	40 (104)	10 min	S	***	***	***	**
Yes	98%		1,02	160 (320)	60 (140)	30 sec	L + M	**	**	**	**
Yes	98%		1,03	160 (320)	60 (140)	30 sec/2 h	L + M	**	**	**	**

The values listed are determined at 20 °C (68 °F) under laboratory conditions. These are typical properties of the products. These values do not serve the specification, we will be happy to provide specification-relevant values on request. *² The declared resistance serves as a guide. For one Please contact our technicians for a reliable statement. We do not accept any liability for this information.



We keep to world moving



PRODUCT DEVELOPMENTS TO CUSTOMER REQUIREMENTS

Use our competence to your advantage

In order to find the right sealer for your application, we go into details. The starting point of a successful development is an initial joint discussion in order to determine your individual needs and which possible tests and parameters are relevant for your application. Then we create a test plan and define the ultimate goals. The tests are always carried out on actual provided coating samples you have produced with your own materials, parameters and systems. This guarantees a most realistic starting point for best practical results for when the product is then transferred into the real world. Success with a plan, supported by a guarantee and documented proof. Of course, you will also receive complete documentation for the results. The tests prove the functioning of our sealers in connection with your coatings. Finally you receive a tested product with proven functionality for your coatings.

APPLICATION SERVICE / SUBCONTRACTING

Whether at your site, on the construction site or at our factory

Are you looking for support in using our products? The **DIAMANT** technicians and fitters are professionals with many years of experience and in-depth expertise. Talk to us, we will be happy to make an appointment at your location. Or simply send us your parts and we will apply the products in our factory for you.

CONTRACT MANUFACTURING

Continuously growing partnership

We are a manufacturing company with adequate and professional equipment to produce high quality polymer products in large quantity. Besides fillers, coatings and adhesives, it can also be used to manufacture other products. Well-known national and international manufacturers and/or recipe owners have their products manufactured by us for more than 25 years. We manufacture these products according to formulation templates and then calculate the needed equipment, staff and the services. Everything always according to quality standard ISO 9001 and act not as an extended workbench, but as your permanent and trustworthy partner with the same goals and quality standards.

OWN LABEL

Our product under your good name



Would you like to sell **DIAMANT** quality products under your own name? No problem. Talk to our customer service and we will be happy to make you an individual offer. We take care of label printing and manufacturing. If desired, we can even look after the distribution around the globe of the goods for you. You receive REACH-compliant labels and safety data sheets in all European and many Non-European languages. Customs clearance and registration can also be handled by our experienced staff without any issue.

PRODUCT OWNERSHIP

Maximum exclusivity - a product just for you

It does not work? Yes, it does. Our ultimate goal is to offer you a functioning and profitable solution with real added value. To do this, it is necessary to understand your requirements and processes in detail. We understand that this often affects sensitive areas of your business. Being a reliable partner even under such conditions, we not only offer individual confidentiality agreements (NDA) but also the option of manufacturing the jointly developed product exclusively for you. This is done according to old merchant custom, confirmed with a letter and seal. Because your Know-How is safe with us – **Promise!**

130 YEARS OF EXPERIENCE

Tradition, Innovation, Consistency

We are already in the 5th generation of developing and manufacturing special polymer-based products for the world. Our special Know-how lies in extremely well-filled composite systems in the areas of wear protection, power transmission, positive locking, frictional locking or metal repairs. In addition to these systems, we also serve the other extreme of low-viscosity unfilled polymer systems, such as those used in the areas of impregnation, sealing or infiltration.

The modern and environmentally friendly product solutions are used for repairs, maintenance, but also for production or in new buildings. **DIAMANT** products preserve values and protect your investments. Our products contribute to the efficient use of scarce resources. Because one thing is as true today as it was 130 years ago: The resources of our world are limited. Therefore, they should be used efficiently and carefully.



10

OUR MISSION

Mission

Protect, repair, connect: DIAMANT products and services help you to avoid costs and preserve values

- Protect surfaces as composite materials and thus extend the service life of pipes, pumps, pipelines, etc.,
- Correct defective castings as repair materials and make them usable
- As impregnation materials protect porous structures and increase their durability as well
- as a „liquid lining sheet“, non-positive and form-fitting, full-surface and permanently corrosion-resistant
- Establish connections without mechanical processing.

Product and application solutions from DIAMANT protect the environment and conserve resources

- Increase the stability and service life of machines, systems and constructions
- Reduce scrap and thus unnecessary consumption of raw materials
- Significantly help in this, defective products, machines, plants, constructions and structures to repair and make usable again
- Limit material losses
- Shorten construction times and thereby also reduce energy consumption and the wear and tear of the machines used

The excellent quality of our products and application solutions give our customers the peace of mind of keeping the quality promises given by you.



Our Services



Areas of application of our products



Foundry & Automotive

Metal impregnation,
Repair of blowholes,
Filling filler & putty.
Reduce scrap, preserve
values.



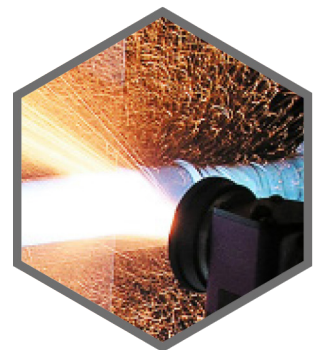
Mechanical Engineering Additive Manufacturing

Slide bearings, slide linings,
Adjustment pads, seals and
infiltration of porous struc-
tures. Avoid costs, refine
products.



Steel & Bridge Construction

Gap and tolerance compen-
sation on steel structures.
Avoid costs, generate
friction.



Thermal Coating

Wear protection, coating &
sealing. Preserve values,
protect surfaces.



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