DÖRKEN®

OUR

BIOCIDE-FREE PRODUCTS

MISSION

COLORANTS & COMPONENTS

COLORANTS & COMPONENTS

DÖRKEN is your reliable partner when it comes to innovation in the field of pigment pastes and customized solutions for tinting systems. Our sector “Colorants and Components” includes pigment pastes and customized solutions for tinting systems. By “colorants” we mean our different pigment pastes for a wide range of services. With our “components” we provide the basis for biocide-free aqueous pastes, dispersion paints, varnishes, plasters and other coatings. In addition, we offer you services in the field of microbiology, advice and transfer of know-how when you want to create a new formulation.

COLORANTS

PIGMENT PASTES

NEW

ECOLOGICAL WATER
The series of pastes for preservative-free aqueous systems which offers 15 very colorful pigment pastes.

NEW

ECOLOGICAL UNIVERSAL
The first biocide-free series of liquid pastes with a broad and universal range of applications.

UNIVERSAL
The best solution for water-based and solvent containing coating systems.

AQUA
The solution for water-based coatings.

INDUSTRY
The efficient solution for industrial serial production.

SOLVENT
Sets new standards in tinting technology for solvent containing varnish and transparent varnish systems and that for various areas of application.

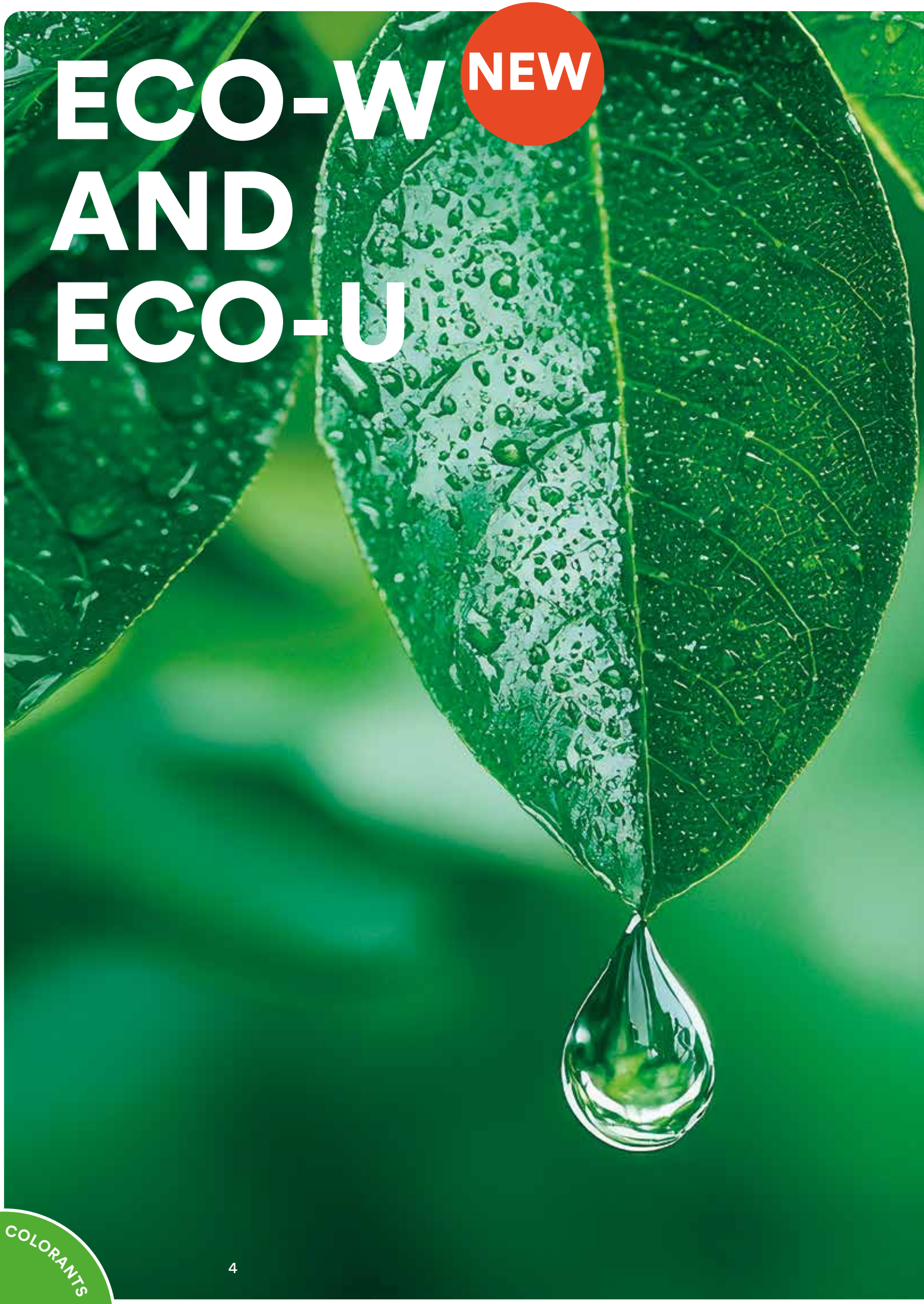
COMPONENTS

FILLERS AND SERVICES

FILLERS & ADDITIVES
Thanks to our innovative technologies it is possible to produce, among other things, biocide-free formulations for coatings and other building materials.

SERVICE PERFECTLY TAILORED TO OUR CUSTOMERS' REQUIREMENTS
We offer our know-how not only for when you want to change your tinting system but also when you wish to become more flexible regarding your purchasing strategy. We are gladly your partner for compatibility tests, product range analysis and training courses.

MICROBIOLOGICAL TESTING SERVICE
Regular tests for contaminants, impurities and germs in the production environment are an integral part of an effective hygiene management to guarantee a hygienic production and consequently a constantly high level of product quality.


NEW
ECO-W
AND
ECO-U

DÖRKEN®

As a chemical company we take our responsibility for the environment seriously and undertake the task of developing innovative solutions which are not only high-performance solutions but also meet ecological standards. As a matter of fact, we continuously focus on ecological progress and set new standards which even go beyond legal requirements. This also includes the development of new ecological pastes. We guarantee the strict compliance with quality standards and regulations and thereby ensure that our products meet the highest requirements. With our innovative, user and environmentally friendly pastes we redefine chemical industry standards – for a sustainable future which does not only embrace the needs of today but as well those of tomorrow.

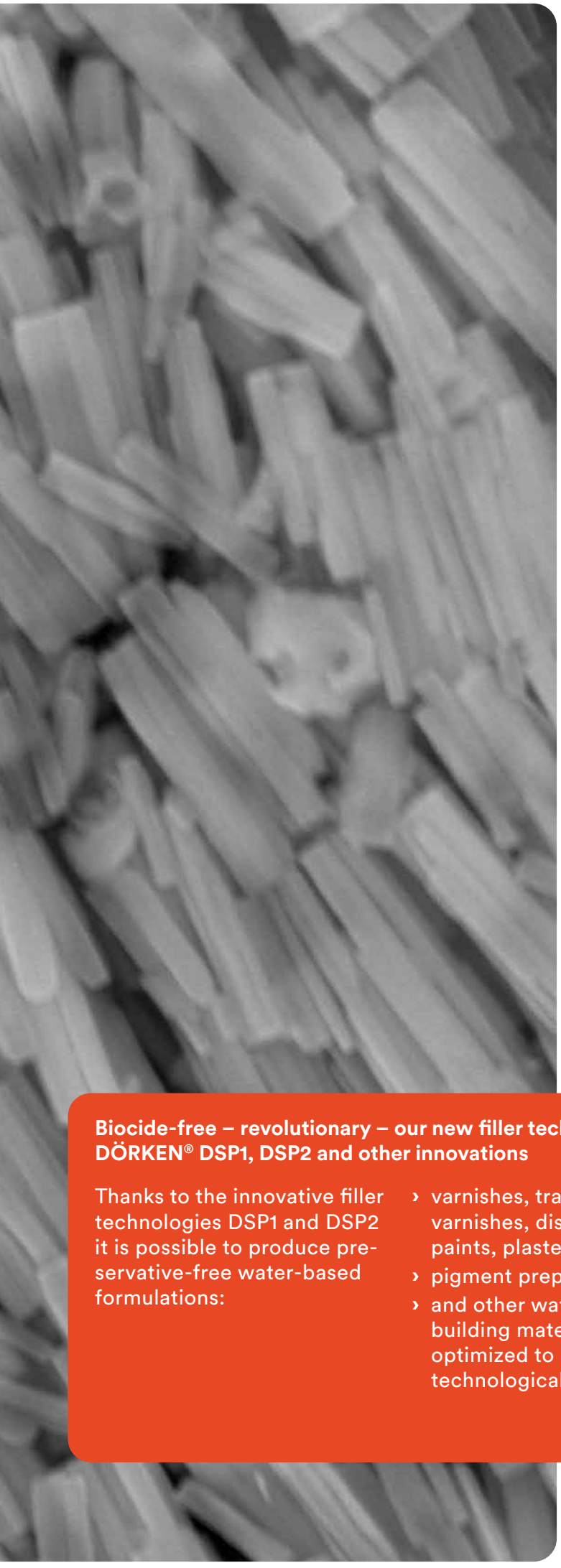
ECOLOGICAL WATER (ECO-W)

Our very innovative preservative-free series of liquid pastes for aqueous systems sets new standards in the field of sustainable coatings. With its broad field of applications, ranging from dispersion paints to varnishes, this new series of pastes redefines industry standards and can be used to color paints and varnishes to be certified in compliance with the requirements of the German Blue Angel Ecolabel.

ECOLOGICAL UNIVERSAL (ECO-U)

The first biocide-free series of liquid pastes on the market with a broad and universal range of applications both for water-based and solvent containing systems. The series of pastes can be used to color transparent varnishes, varnishes and dispersion paints.


NEXT LEVEL
OF FILLERS



DÖRKEN®

Biocide-free – revolutionary – our new filler technologies: DÖRKEN® DSP1, DSP2 and other innovations

Thanks to the innovative filler technologies DSP1 and DSP2 it is possible to produce preservative-free water-based formulations:

- varnishes, transparent varnishes, dispersion paints, plasters,
- pigment preparations
- and other water-based building materials can be optimized to reach a new technological level.

- A stable high ph-value > 11 with buffer effect
- The controlled solubility of the fillers with depot effect
- The controlled salt load in the aqueous phase creates a suboptimal environment for the growth of germs

COLORANTS

DÖRKEN®

ECOLOGICAL

UNIVERSAL

AQUA

INDUSTRY

SOLVENT

The DÖRKEN range of products comprises of paste systems for aqueous or solvent containing application cycles and for decorative or industrial purposes – always at a high level of quality.
Well-founded advice is an absolute must for us at DÖRKEN regardless of whether you intend to purchase single pastes or entire tinting systems. We put our know-how at your disposal not only when you want to change your tinting system but also when you need advice regarding a change concerning the formulations.

- standardized and reproducible
- tight tolerances
- excellent for use in mixing systems
- no sedimentation
- storage-stable
- resistant to microbiological contamination

ECOLOGICAL WATER (ECO-W)

ECOLOGICAL WATER

DÖRKEN® ECOLOGICAL WATER (ECO-W) is the series of pastes for preservative-free aqueous systems and offers 15 very colorful pigment pastes.
The high color intensity of the DÖRKEN® ECOLOGICAL WATER series of tinting pastes which comprise 93% of the NCS color fan guarantees a high coverage capacity. Used for applications in the interior the very efficient pigment pastes impress with a high light stability and weather resistance and with their good compatibility with aqueous systems.
Clients can always rely on DÖRKEN's consistent quality standards applied from the hygienic management during the production processes to the continuous development of our products.
The DÖRKEN® ECOLOGICAL WATER series of pastes is suitable for pure acrylate, silicate paints, mineral plasters and polyurethane binders. At customers' requests many more color shades are producible.

SPECIAL FEATURES

- preservative-free pastes for the certified tinting of aqueous systems according to the guidelines of the German Ecolabel Blue Angel, the Nordic Swan Ecolabel and the EU Ecolabel
- existing mixing plants, shakers and databases can still be used with the liquid paste technology
- full compatibility with aqueous systems
- also suitable for factory tinting systems
- a hygienic and clean container concept rounds off the system by increasing microbiological safety
- standard shaker times of 1 to 3 minutes

SPECIFICATIONS

		92.5% : 7.5% transparent basic material	96% : 4% full white basic material	99.5% : 0.5% full white basic material	Color	Color Index	Pigment content	Density (g/ml)*	BFS Data Sheet 26**	Light stability tinted product***	Weather resistance tinted product***	Alkali resistance	Acid resistance
✗	**490**				WHITE	PW 6	ca. 65	2,08-2,16	1	8	8	5	5
✗	**493**				BLACK (MC)	PBk 7	ca. 14	1,20-1,26	2	8	5	5	5
	VP 0963				BLACK OXIDE	PBk 33	ca. 55	1,98-2,08	1	8	5	5	5
✗	**451**				BLUE R	PB 15:2	ca. 20	1,21-1,27	2	8	4-5	5	5
	VP 0887				BLUE COBALT R	PB 28	ca. 65	2,05-2,15	1	8	5	5	5
✗	**461**				GREEN	PG 7	ca. 30	1,30-1,36	2	8	4-5	5	5
	VP 0965				GREEN OXIDE	PG 17	ca. 70	2,34-2,46	1	8	5	5	5
✗	**414**				YELLOW G	PY 184	ca. 47	1,85-1,93	1	8	5	5	4-5
✗	**411**				YELLOW	PY 74	ca. 43	1,20-1,26	4	6-7	3	5	5
✗	**410**				YELLOW OXIDE G	PY 42	ca. 44	1,58-164	1	8	5	5	5
✗	**427**				ORANGE Y	PY 110	ca. 35	1,24-1,30	2	8	5	5	5
✗	**429**				ORANGE R	PY 65	ca. 42	1,24-1,30	3	6-7	3	4-5	5
	VP 0888				ORANGE OXIDE	PY 42	ca. 58	1,85-1,95	1	8	5	5	5
	VP 0889				RED OXIDE Y	PR 101	ca. 58	2,01-2,09	1	8	5	5	5
✗	**441**				MAGENTA	PR 122	ca. 24	1,14-1,20	3	7-8	4-5	5	5

GERMAN INNOVATION AWARD

* Density according to DIN EN ISO 2811-3 (oscillation method).
** BFS Data Sheet 26 informs about color changes that could occur on the façade.
*** Light stability/Weather resistance: the information is based on the pigment producers' data.

Full shade: 92.5% transparent basic material with 7.5% pigment paste
Medium mixture: 96% full white basic material with 4% pigment paste
Light mixture: 99.5% full white basic material with 0.5% pigment paste

✗ In the future these pastes will be biocide-free and can be used for certifications according to the Blue-Angel-Regulations (German Ecolabel).

VP: ongoing conformity tests to fulfil the preservative-free standards.

PRESERVATIVE FREE

ECOLOGICAL UNIVERSAL (ECO-U)

ECOLOGICAL UNIVERSAL

The universal ECO-pastes combine the liquid tinting technology with the latest requirements of the Ecolabels regarding biocide-free products. Pigments already proven on the market have been substituted in the proportion 1:1 with preservative-free pigments. A particular characteristic of the pastes is their compatibility with common binders like pure acrylate and polyurethane and special binders like polyvinyl acetate, two-component systems and alkyds. In addition, they always offer good light stability and weather resistance both in the exterior and in the interior. Regular tests for contaminants, impurities and germs in the production environment are an integral part of our effective hygiene management. The “drop-in-solution” is continuously tested in our microbiological test laboratory to guarantee that our customers can rely on the usual high DÖRKEN quality standards.

SPECIAL FEATURES

- universally applicable in water-based and solvent containing coating systems
- highly compatible with other products
- standard shaker times from 1 to 3 minutes
- low VOC and SVOC values
- plug-and-use concepts for existing mixing systems
- excellent hygiene management and regular microbiological tests

SPECIFICATIONS

	92.5% : 7.5% transparent basic material 96% : 4% full white basic material 99.5% : 0.5% full white basic material	Color	Color Index	Pigment content	Density (g/ml)*	BFS Data Sheet 26**	Light stability tinted product***	Weather resistance tinted product***	Alkali resistance	Acid resistance
VP 0886		WHITE	PW 6	ca. 60	2,08-2,16	1	8	8	5	5
VP 0890		BLACK (LC)	PBk 7	ca. 12	1,26-1,32	2	8	5	5	5
VP 0937		BLACK OXIDE	PBk 33	ca. 39	1,78-1,89	3	8	5	5	5
VP 0949		BLUE R	PB 15:2	ca. 34	1,21-1,27	2	8	4-5	5	5
VP 0916		GREEN	PG 7	ca. 15	1,30-1,36	2	8	4-5	5	5
VP 0932		GREEN OXIDE	PG 17	ca. 63	2,17-2,24	2	8	4-5	5	5
VP 0939		BISMUTH	PY 184	ca. 58	1,85-1,93	1	8	5	5	4-5
VP 0928		YELLOW	PY 74	ca. 44	1,20-1,26	2	6-7	3	5	5
VP 0953		YELLOW OXIDE	PY 42	ca. 59	1,85-2,01	4	8	5	5	5
VP 0912		YELLOW OXIDE TR.	PY 42	ca. 28	1,26-1,32	1	8	5	x	x
VP 0891		RED	PR 254	ca. 40	1,30-1,36	3	8	4	5	5
VP 0938		RED OXIDE Y	PR 101	ca. 61	2,01-2,09	1	8	5	5	5
VP 0913		RED OXIDE TR.	PR 101	ca. 25	1,27-1,33	1	8	5	x	x
VP 0943		MAGENTA	PR 122	ca. 18	1,14-1,20	1	7-8	4-5	5	5
VP 0915		ORANGE Y	PY 170	ca. 40	1,17-1,23	1	8	4	5	5

* Density according to DIN EN ISO 2811-3 (oscillation method).
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*** Light stability/Weather resistance: the information is based on the pigment producers' data.

Full shade: 92.5% transparent basic material with 7.5% pigment paste
Medium mixture: 96% full white basic material with 4% pigment paste
Light mixture: 99.5% full white basic material with 0.5% pigment paste

VP: ongoing conformity tests to fulfil the preservative-free standards.

PRESERVATIVE FREE

UNIVERSAL

UNIVERSAL

DÖRKEN® UNIVERSAL is the best solution for water-based and solvent containing coating systems. Thanks to their wide range of applications, the pastes always satisfy, offering maximum flexibility within the tinting concept.

In addition to very colorful organic pigments DÖRKEN® UNIVERSAL uses a large number of inorganic pigments thus providing you with an ideal choice and infinite composition options for every intended use. This product line of pastes offers an extensive range of colors regardless of the mixing system used, for example for acrylate, alkyd and silicate systems. This means you can achieve optimal results even on a 16-piece mixing system, these results can also be obtained using larger mixing plants.

SPECIAL FEATURES

- compatible with solvent containing and water-based systems
- high coverage even when adding less than 7% of paste to transparent basic products
- suitable for in-plant and Point of Sale tinting for a holistic application in the company
- perfect for polyurethane, silicate, polyvinyl acetate and acrylate systems
- the ideal combination of very colorful organic pigments and selected inorganic pigments for a wide range of applications
- high light stability according to BFS data sheet 26

SPECIFICATIONS

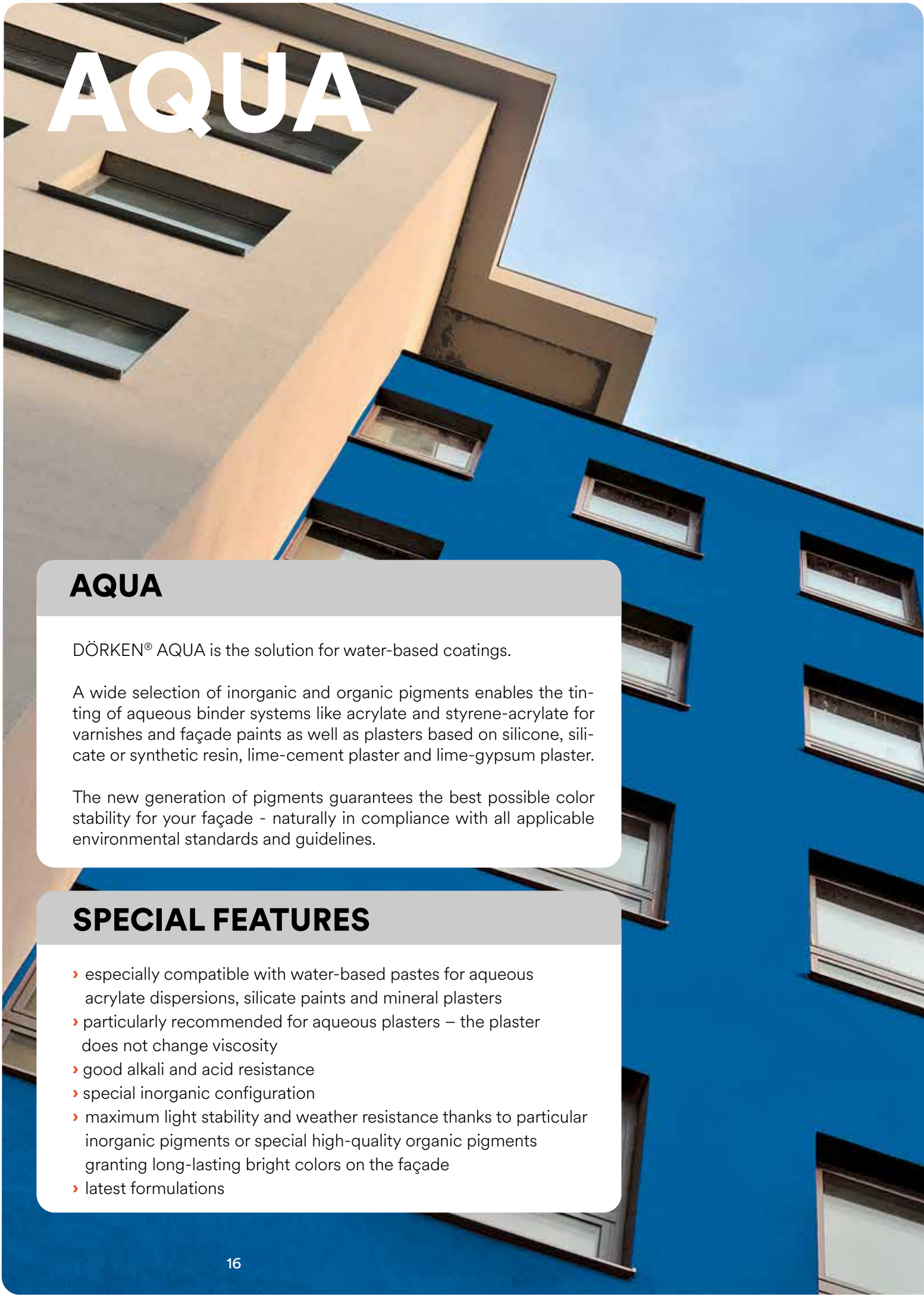
		94.2% : 5.8% transparent basic material 93% : 7% full white basic material 98.6% : 1.4% full white basic material	Color	Color Index	Pigment content	Density (g/ml)*	BFS Data Sheet 26**	Light stability tinted product***	Weather resistance tinted product***	Alkali resistance	Acid resistance
✗	**111**		WHITE	PW 6	ca. 60	1,97-2,07	1	8	8	5	5
✗	**125**		BLACK (LC)	PBk 7	ca. 12	1,26-1,32	2	8	5	5	5
	145		BLACK (MC)	PBk 7	ca. 22	1,13-1,19	2	8	5	5	5
✗	**592**		BLACK OXIDE	PBk 33	ca. 39	1,78-1,89	1	8	5	5	5
	119		RED VIOLET	PR 122/ PV 23	ca. 18	1,06-1,12	3	7-8	4-5	5	5
✗	**121**		BLUE R	PB 15:2	ca. 33	1,15-1,21	2	8	5	5	5
	142		ULTRAMARINE BLUE	PB 29	ca. 47	1,40-1,48	1	8	5	5	4-5
	144		TURQUOISE COBALT	PB 28	ca. 45	1,61-1,69	1	8	5	5	5
✗	**123**		GREEN	PG 7	ca. 15	1,23-1,29	2	8	5	5	5
✗	**124**		GREEN OXIDE	PG 17	ca. 63	2,17-2,24	1	8	4-5	5	5
✗	**112**		YELLOW BIVA G	PY 184	ca. 58	1,99-2,09	1	8	4-5	5	4-5
	502		YELLOW	PY 154	ca. 39	1,17-1,23	2	8	5	5	5
✗	**133**		YELLOW	PY 74	ca. 44	1,17-1,22	4	6-7	3	4-5	4-5
✗	**500**		YELLOW OXIDE	PY 42	ca. 59	1,85-2,01	1	8	5	5	5
✗	**115**		ORANGE Y	PY 170	ca. 40	1,17-1,23	2	8	4	5	5
	541		RED OXIDE Y	PR 101	ca. 61	2,02-2,15	1	8	5	5	5
✗	**117**		RED	PR 254	ca. 40	1,20-1,26	2	8	4	5	5
	138		RED OXIDE B	PR 101	ca. 61	2,12-2,22	1	8	5	5	5
✗	**159**		MAGENTA	PR 122	ca. 18	1,07-1,11	3	7-8	4-5	5	5
	120		MAGENTA OXIDE	PV 15	ca. 56	1,49-1,57	1	8	4-5	5	4-5
✗	**114**		YELLOW OXIDE TRANSP.	PY 42	ca. 28	1,26-1,32	1	8	5	x	x
✗	**118**		RED OXIDE TRANSP.	PR 101	ca. 25	1,27-1,33	1	8	5	x	x

* Density according to DIN EN ISO 2811-3 (oscillation method).
** BFS Data Sheet 26 informs about color changes that could occur on the façade.
*** Light stability/Weather resistance: the information is based on the pigment producers' data.

Full shade: 94,2% transparent basic material with 5,8% pigment paste
Medium mixture: 93% full white basic material with 7% pigment paste
Light mixture: 98,6% full white basic material with 1,4% pigment paste

✗ In the future these pastes will be biocide-free and can be used for certifications according to the Blue-Angel-Regulations (German Ecolabel).

AQUA



AQUA

DÖRKEN® AQUA is the solution for water-based coatings.

A wide selection of inorganic and organic pigments enables the tinting of aqueous binder systems like acrylate and styrene-acrylate for varnishes and façade paints as well as plasters based on silicone, silicate or synthetic resin, lime-cement plaster and lime-gypsum plaster.

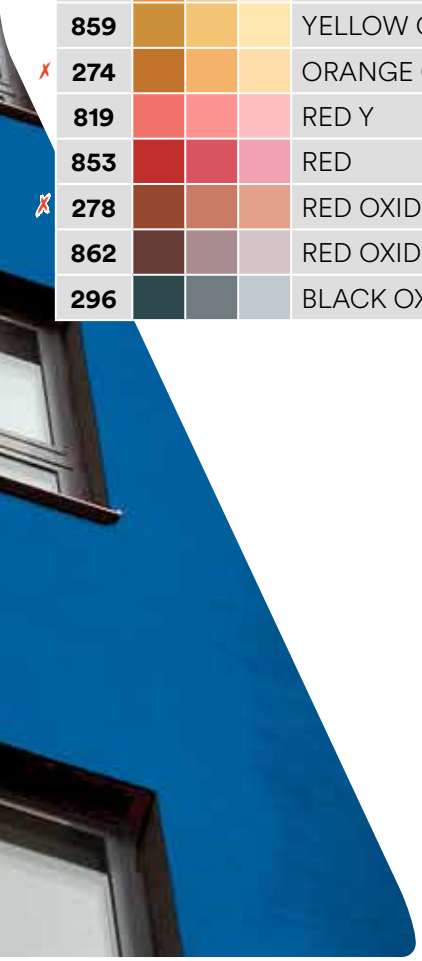
The new generation of pigments guarantees the best possible color stability for your façade - naturally in compliance with all applicable environmental standards and guidelines.

SPECIAL FEATURES

- especially compatible with water-based pastes for aqueous acrylate dispersions, silicate paints and mineral plasters
- particularly recommended for aqueous plasters – the plaster does not change viscosity
- good alkali and acid resistance
- special inorganic configuration
- maximum light stability and weather resistance thanks to particular inorganic pigments or special high-quality organic pigments granting long-lasting bright colors on the façade
- latest formulations

SPECIFICATIONS

	94.2% : 5.8% transparent basic material	93% : 7% full white basic material	98.6% : 1.4% full white basic material	Color	Color Index	Pigment content	Density (g/ml)*	BFS Data Sheet 26**	Light stability tinted product***	Weather resistance tinted product***	Alkali resistance	Acid resistance
854				WHITE	PW 6	ca. 65	2,02-2,12	1	N/A	N/A	5	5
848				BLACK (LC)	PBk 7	ca. 18	1,23-1,29	2	8	5	5	5
839				BLACK (HC)	PBk 7	ca. 30	1,30-1,36	2	8	5	5	5
847				BLACK OXIDE	PBk 33	ca. 55	1,98-2,08	1	8	5	5	5
843				BLUE G	PB 15:3	ca. 35	1,19-1,25	2	8	4-5	5	5
846				ULTRAMARINE BLUE	PB 29	ca. 54	1,55-1,63	1	8	4-5	5	4-5
✗ **262**				BLUE COBALT R	PB 28	ca. 65	2,05-2,15	1	8	5	5	5
845				TURQUOISE COBALT	PG 50	ca. 48	1,80-1,90	1	8	5	5	5
849				GREEN	PG 7	ca. 30	1,37-1,45	2	8	4-5	5	5
861				GREEN OXIDE	PG 17	ca. 70	2,34-2,46	1	8	5	5	5
850				GREEN COBALT	PG 50	ca. 67	2,16-2,28	1	8	5	5	5
856				YELLOW BIVA G	PY 184	ca. 60	2,17-2,29	1	8	4-5	5	4-5
860				YELLOW	PY 74	ca. 26	1,35-1,42	3-4	6-7	3	4	5
837				ORANGE G	PY 110	ca. 30	1,32-1,38	2	8	5	4-5	5
857				ZINC ORANGE	PY 216	ca. 50	2,02-2,12	1	7-8	4-5	5	4-5
863				ORANGE OXIDE	PO 85	ca. 65	1,93-2,03	1	8	4-5	5	4-5
859				YELLOW OXIDE	PY 42	ca. 54	1,80-1,90	1	8	5	5	5
✗ **274**				ORANGE OXIDE	PY 42	ca. 58	1,85-1,95	1	8	5	5	5
819				RED Y	PR 168	ca. 36	1,20-1,26	2	8	5	5	5
853				RED	PR 254	ca. 35	1,32-1,38	2	8	4	5	5
✗ **278**				RED OXIDE Y	PR 101	ca. 61	2,02-2,12	1	8	5	5	5
862				RED OXIDE B	PR 101	ca. 65	2,21-2,33	1	8	5	5	5
296				BLACK OXIDE NIR	PG 17 IR	ca. 67	2,36-2,48	1	8	5	5	5



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Full shade: 94,2% transparent basic material with 5,8% pigment paste
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Light mixture: 98,6% full white basic material with 1,4% pigment paste

✗ In the future these pastes will be biocide-free and can be used for certifications according to the Blue-Angel-Regulations (German Ecolabel).

INDUSTRY

INDUSTRY

DÖRKEN® INDUSTRY is our efficient solution for industrial serial productions. The carefully selected pigments impress with their resistance to numerous influencing factors including high heat resistance and a Volatile Organic Compounds (VOC) content which is in line with the market.

DÖRKEN® INDUSTRY offers you an extensive range of colors for solvent containing coating systems for every mixing plant, for example with long and short oil alkyds, polyesters, two-component polyurethane, epoxy and nitrocellulose systems.

SPECIAL FEATURES

- excellent coverage
- high heat resistance for two-component polyurethane and two-component epoxy systems and melamine systems
- excellent light stability and weather resistance
- suitable for spray application
- compatible with corrosion protection systems, no reduction of protection according to DIN EN 12944
- suitable for in-plant and Point of Sale tinting

SPECIFICATIONS

	93% : 7% transparent basic material	94% : 3% : 3% transparent basic material	94% : 0.3% : 5.7% transparent basic material	Color	Color Index	Pigment content	Density (g/ml)*	VOC content (g/l)	Light stability tinted product**	Weather resistance tinted product**	Heat resistance in C°
690				WHITE	PW 6	ca. 70	2,04-2,24	180	8	5	200
692				BLACK (LC)	PBk 7	ca. 14	1,15-1,28	400	8	5	200
693				BLACK (HC)	PBk 7	ca. 24	1,15-1,22	350	8	5	200
643				VIOLET	PV 23	ca. 8	1,01-1,22	470	8	4	200
672				BLUE BR	PB 15:2	ca. 20	1,11-1,36	375	8	200	200
675				BLUE	PB 15:4	ca. 16	1,11-1,31	400	8	4-5	200
660				GREEN	PG 7	ca. 24	1,15-1,41	440	8	5	200
601				YELLOW BIVA G	PY 138/ PY 184	ca. 18	1,25-1,45	285	6-7	4-5	200
604				CITRON YELLOW	PY 138	ca. 47	1,21-1,35	280	6-7	4-5	200
602				YELLOW BROWN	PBr 24	ca. 70	2,05-2,28	165	8	5	200
603				ORANGE YELLOW	PY 138 / PY 139	ca. 30	1,15-1,35	330	8	4	200
600				YELLOW OXIDE	PY 42	ca. 64	1,80-2,00	230	8	4-5	180
621				ORANGE	PO 73	ca. 28	0,99-1,11	380	7-8	4-5	0
620				ORANGE	PO 36	ca. 31	1,02-1,22	375	7-8	5	160
644				RED	PR 254	ca. 43	1,07-1,28	325	8	4-5	200
645				RED	PR 170	ca. 41	1,01-1,22	380	6	3	180
646				RED INT	PR 112	ca. 35	1,07-1,31	485	6	4-5	160
642				RED OXIDE Y	PR 101	ca. 66	2,02-2,22	150	8	5	200
641				MAGENTA	PR 122	ca. 13	1,02-1,22	430	7	4	200

* Density according to DIN EN ISO 2811-3 (oscillation method).
** Light stability/Weather resistance: the information is based on the pigment producers' data.

Full shade: 93% transparent basic material with 7% pigment paste
Medium mixture: 94% transparent basic material with 3% pigment paste + 3% 690 WHITE
Light mixture: 94% transparent basic material with 0.3% pigment paste + 5.7% 690 WHITE

SOLVENT

SOLVENT

DÖRKEN® SOLVENT sets standards in tinting technology for solvent containing varnish and transparent varnish systems – and that for various areas of application.
The very colorful selection of organic and inorganic pigments offers high coverage and a wide range of colors of maximum brilliance as well as high light stability and weather resistance. The pastes are easy to incorporate and very compatible with numerous solvent containing binder systems, including long and short oil alkyd resins and air-drying oils.

The addition of transparent iron oxides to solvent containing transparent varnishes enables the reproduction of authentic real wood colors.

SPECIAL FEATURES

- compatible with solvent containing thin to thick-layer transparent wood varnishes, oils and varnishes
- selection of very colorful organic and inorganic pigments for bright real wood colors
- high coverage even when adding less than 10% of pigment paste to transparent basic materials
- UV radiation resistant and non-yellowing in long-term tests
- useable with UNIVERSAL and AQUA pastes in the same mixing plant

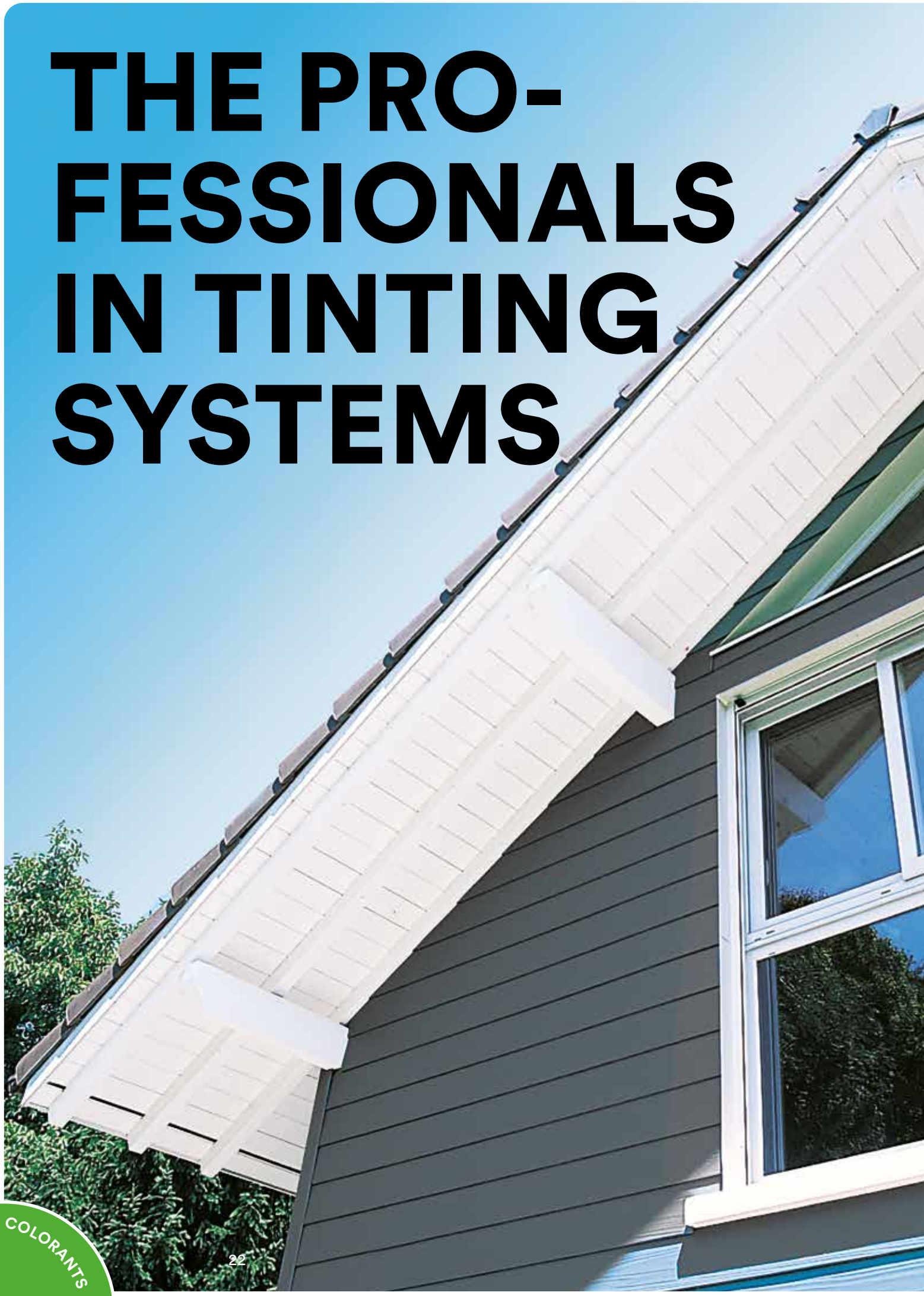
SPECIFICATIONS

	93% : 7% transparent basic material	93% : 4.9% : 2.1% transparent basic material	93% : 0.25% : 6.75% transparent basic mat.	Color	Color Index	Pigment content	Density (g/ml)*	Light stability tinted product**	Weather resistance tinted product**	VOC content
311				WHITE	PW 6	ca. 74	2,07-2,22	8	5	230
345				BLACK (LC)	PBk 7	ca. 13	1,07-1,13	8	5	220
339				VIOLETT	PV 23	ca. 13	1,03-1,08	8	4	260
321				BLUE	PB 15:2	ca. 16	1,19-1,24	8	5	260
343				GREEN	PG 7	ca. 20	1,10-1,17	8	4-5	n.a.
312				LEMON	PY 184	ca. 60	1,98-2,14	8	4-5	250
333				YELLOW	PY 74	ca. 40	1,04-1,08	6-7	3	220
354				OCHER	PY 42	ca. 65	1,76-1,91	8	5	220
315				ORANGE	PY 170	ca. 36	1,01-1,05	7-8	4	280
317				RED	PR 254	ca. 36	1,04-1,08	8	4	260
358				TERRACOTTA	PR 101	ca. 62	1,75-1,89	8	5	n.a.
359				MAGENTA	PR 122	ca. 20	0,98-1,02	7-8	4-5	250
751				YELLOW OXIDE TRANSPARENT	PY 42	ca. 45	1,28-1,34	8	5	210
752				RED OXIDE TRANSPARENT	PR 101	ca. 37	1,30-1,36	8	5	210

* Density according to DIN EN ISO 2811-3 (oscillation method).
** Light stability/Weather resistance: the information is based on the pigment producers' data.

Full shade: 93% transparent basic material with 7% pigment paste
Medium mixture: 93% transparent basic material with 4.9% pigment paste + 2.1% 311 WHITE
Light mixture: 93% transparent basic material with 0.25% pigment paste + 6.75% 311 WHITE

THE PRO-FESSIONALS IN TINTING SYSTEMS



DÖRKEN®

IR-PASTES FOR DARK FAÇADES WITHOUT CRACKS

Brightly colored and dark façade paints are extremely popular with building owners and architects. However, they bear a special challenge. The darker a house façade is painted the warmer the surface gets and when temperatures rise over 80°C cracks may appear in the plaster system or the insulating material may suffer deformation. DÖRKEN therefore offers IR-pastes for the mixing of dark colors. The infrared pigments contained in the pastes reflect the invisible thermal radiation and in this way reduce the heating-up of the surface. These IR-pastes can be added to water-based façade paints, water-based varnishes and transparent wood varnishes.

WHY ARE DÖRKEN® IR-PASTES 296 SO SPECIAL?

- water-based formulation
- black pigments replace soot paste used in traditional formulations
- no heating-up of the façades
- compatible with the DÖRKEN® UNIVERSAL and DÖRKEN® AQUA series of pastes

COLOR SHADES MIXED WITH IR-PASTE 296 BLACK OXIDE NIR:

approx. RAL 5004
approx. RAL 6009
approx. RAL 7012
approx. RAL 7015
approx. RAL 7016
approx. RAL 7021
approx. RAL 7022
approx. RAL 8017

REAL WOOD AND COLORED SHADES FOR TRANSPARENT WOOD VARNISHES

Transparent wood varnishes as well as the organic building material have special requirements concerning protection. All color shades have to correspond to the natural wood grain. They have an intensive effect and accentuate wood grain, color and structure of the wooden surface without covering it. Moreover, the paste shall not have any effect on the alkyd binders. In this regard DÖRKEN offers the ideal solution for water-based and solvent containing transparent varnishes and oils.

PRODUCT CHARACTERISTICS

- intensive and homogeneous covering which leaves the wood grain visible
- easy to mix with different kinds of transparent varnishes
- VOC values in line with the market
- longer stability to weathering

DÖRKEN® TINTING CONCENTRATES

Universally applicable water-based transparent iron oxide pastes

114 YELLOW OXIDE TRANSP.
118 RED OXIDE TRANSP.

Real wood colors for solvent containing transparent wood varnishes using solvent-based (iron oxide) pastes:

751 YELLOW OXIDE TRANSP.
752 RED OXIDE TRANSP.

COMPONENTS

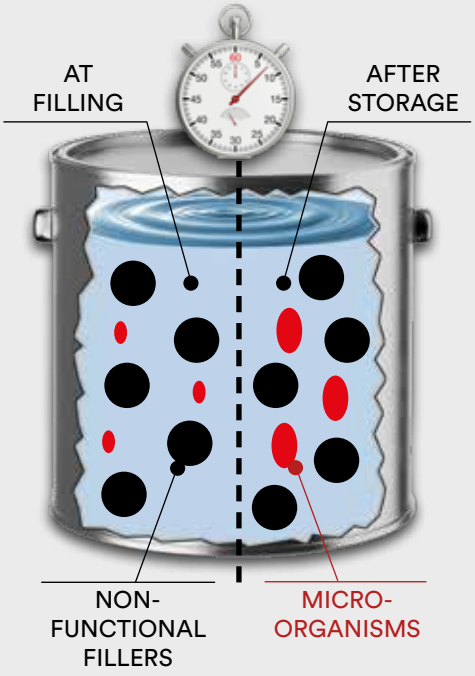
DÖRKEN®

COMPONENTS

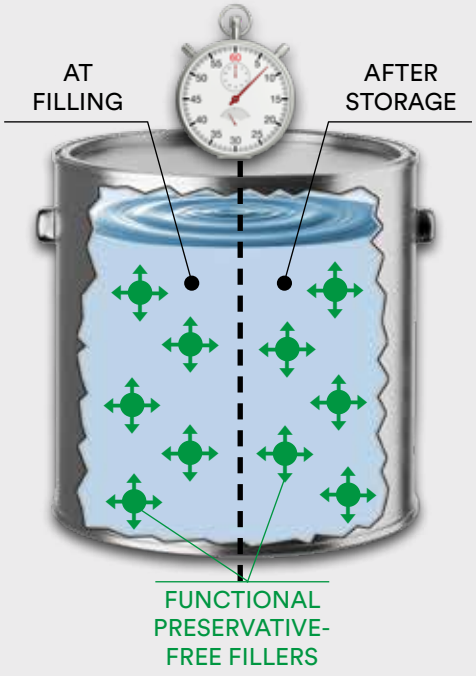
In order to obtain sustainable and environmentally sound products the production process has to be concerted in all fields. This also includes the technology behind the pastes in the form of semi-finished products. The consequent compliance with hygienic standards reduces infestations to a minimum. The whole process is further optimised by the use of functional preservative-free fillers because they create a sub-optimal environment for germs. Moreover, the stable high ph-value of approximately 11 ensures in combination with a buffer effect that the formulation's effect remains constant. The controlled solubility of the filler guarantees a depot effect i.e. the salt load in the aqueous phase is continuously released. The targeted control of the process contributes to stabilize the formulation preventing an unwanted contamination. For our customers this signifies a strategic advantage in the field of preservative-free pastes.

With our know-how in this area we are able to create tailor-made solutions which represent a technological advantage in the field of water-based formulations. Due to these technologies and continuously enhancing them we expand our business model creating a complex range of systems and tecnologies.

Water-based, preservative-free formulation without additional functional KF-fillers



Water-based, preservative-free formulation with additional functional KF-fillers



GUIDELINE FORMULATIONS

The following guideline formulation applies when using DÖRKEN® DSP1 and DSP2 for dispersion paints

NO.	RAW MATERIAL		CHEMICAL BASIS	ADD. IN %
1.	water			28,60
2.	dispersing agent	add numbers 2–5 to number 1 while stirring	sodiumpolyphospat	0,10
3.	dispersing agent		polyacrylate	0,30
4.	defoamer		polyethersiloxane	0,30
5.	thickener		cellulose	0,40
6.	ph-adjusting agent	adjust ph-value to > 9.6	caustic soda	~ 0,75
7.	DSP 2	add numbers 7-12 while stirring and disperse	calcium salt	9,00
8.	white pigment		titanium dioxide	17,00
9.	filler		calcium carbonate	14,00
10.	matting agent		calcium carbonate	4,50
11.	matting agent		diatomaceous earth base	3,50
12.	filler		mica/quartz	8,50
13.	ph-adjusting agent	add numbers 13-16 while stirring	caustic soda	~ 0,75
14.	binder		acrylate	12,00
15.	rheological additive		newtonian polyurathane	0,10
16.	rheological additive		pseudoplastic poly-urethane	0,20
				100,00

DÖRKEN®

The following guideline formulation applies when using DÖRKEN® DSP1 and DSP2 for aqueous varnishes

NO.	RAW MATERIAL		CHEMICAL BASIS	ADD. IN %
1.	water			2,00
2.	solvent	add numbers 2–5 to number 1 while stirring	polyglycol	1,00
3.	defoamer		polyethersiloxane	0,20
4.	co-dispersing agent		amine	0,20
5.	dispersing agent		acrilic base	0,70
6.	ph-adjusting agent	adjust ph-value to > 9.6	caustic soda	~0,50
7.	DSP 1	add numbers 7-8 while stirring and disperse for 30 minutes	calcium salt	8,00
8.	white pigment		titanium dioxide	15,00
9.	water	for dissolver cleaning		4,00
10.	binder	add numbers 1-9 to number 10 slowly while stirring	acrylate	57,00
11.	defoamer		polyethersiloxane	0,40
12.	wetting agent		silicone surfactant	0,50
13.	water	mix numbers 13-15 and add later while stirring	caustic soda	4,00
14.	rheological additive		newtonian polyurathane	0,50
15.	rheological additive		low shear polyurethane	1,60
16.	ph-adjusting agent	number 16 to adjust ph-value and number 17 to adjust viscosity	caustic soda	~1,00
17.	water			~3,40
				100,00

MICRO-BIOLOGY

COMPONENTS

DÖRKEN®

HOLISTIC HYGIENE MANAGEMENT

The increasing importance of hygiene during the production process is underlined by the implementation of innovative technologies which enable a real-time control and fast reactions to improve cleanliness and security of the working spaces.

Regular tests for contaminants, impurities and germs in the production environment are an integral part of an effective hygiene management to guarantee a hygienic production and consequently a constantly high level of product quality.
The continuous monitoring of hygienic standards plays a decisive role to minimize potential health risks and guarantee the quality of manufactured products.

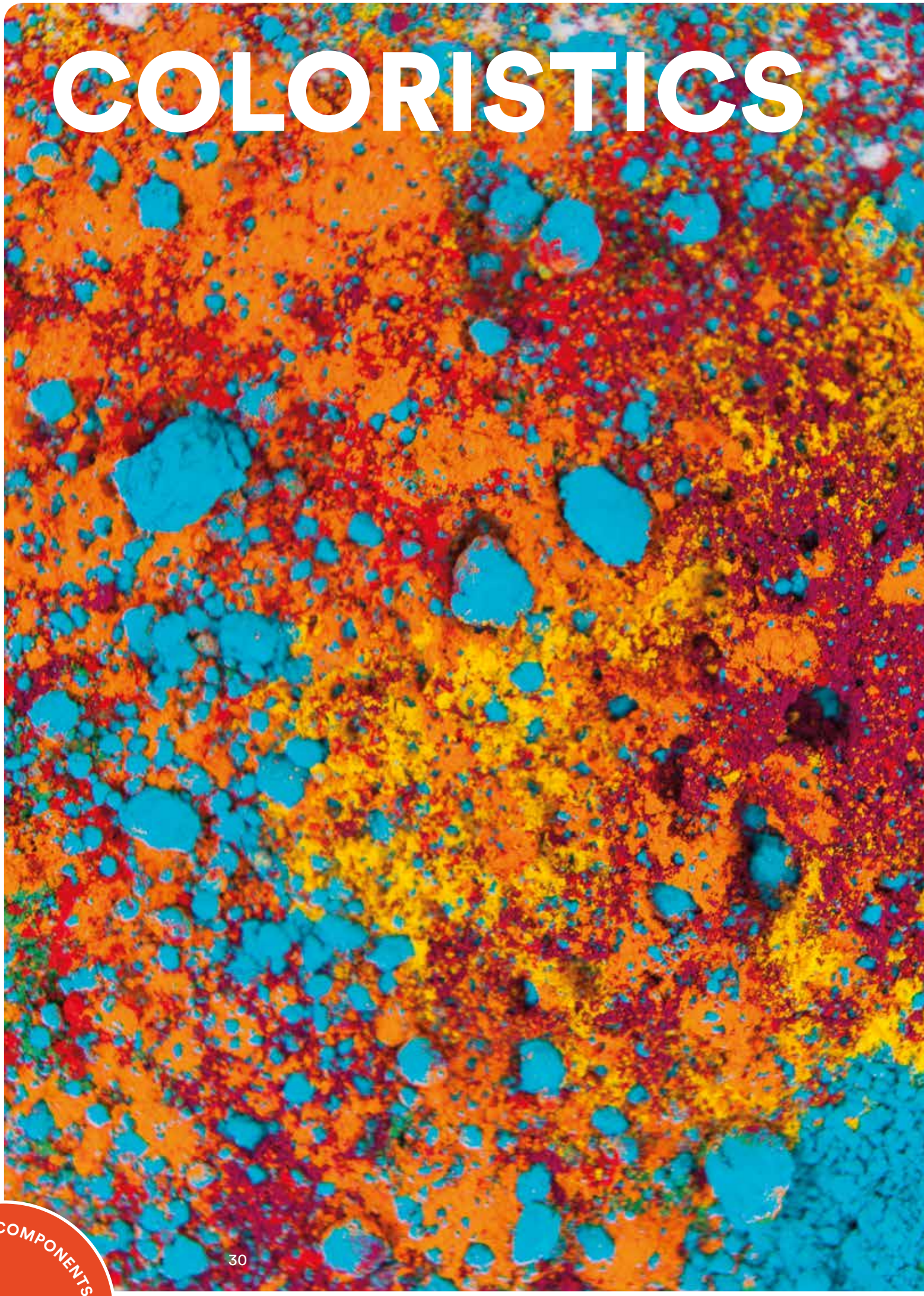
HYGIENE MANAGEMENT

- internal and external hygiene audits for companies
- status quo monitoring with swab-tests and risk factor analysis
- airborne germ measurements
- staff hygiene training
- determination of the number of microbes as a measurement for the microbiological stability of coating systems in products:
  dispersion paints, varnishes, transparent varnishes and tinting pastes
- isolation and identification of existing contamination
- water quality monitoring to avoid risks during production
- germ load determination in formulations
- paint film and coating tests as measurement for the resis tance against algae and fungi

MICROBIOLOGICAL LABORATORY

Scan for more information

COLORISTICS



DÖRKEN®

We carry out a product range analysis of your existing tinting system and then advise you on the possible increases in terms of efficiency. Are you interested in preservative-free pastes? Thanks to our newly developed series of pastes ECO-U and ECO-W we can also offer you solutions in this regard. On the basis of the product line and color range analysis and according to your requirements we develop a concept for the optimization of your color recipes and then define all main parameters. Before providing color matching sequences we undertake extensive compatibility tests to determine which pigment preparations lead to the desired results when added to the basic material. We are experts in using the software solutions by Largo Innova and Datacolor to provide color matching sequences.

If you should need a fast solution, we are also able to provide initial guideline formulations whose high performance is comparable to that of any other competitive product.
We are pleased to share our extensive operating experience and substantial know-how with you giving special training courses.

- Tests of paste compatibility in our customers` systems
- Weathering tests (for example in regard to light stability and weather resistance)
- Provision of color matching sequences for extensive color collections using Datacolor and Largo Innova
- Realization of selected shades for example for transparent wood varnishes
- Color space and tinting costs analysis

INVENTIVE SPIRIT FROM GERMANY

DÖRKEN®

PREMIUM QUALITY MADE IN GERMANY

For DÖRKEN, solution oriented approaches, efficiency and quality always come first. With its key technologies DÖRKEN sets innovative standards regarding preservative-free products which enable customers to update their formulations to the latest state of the art. Our research is always up-to-date in terms of technologies and redefines standards which go way beyond the current technologies.

The entire product range of pastes is produced in Germany and from there distributed worldwide. We produce all our products with “German thoroughness“. This is proven by the excellent results in various fields of application.

SUSTAINABILITY

DÖRKEN®

RECYCLED CONTAINERS

Using recycled containers DÖRKEN contributes to the protection of the environment. Recycled containers are an important component of DÖRKEN's sustainability strategy because they encourage the re-use of plastic materials and as a result conserve resources. This reduces our ecological footprint and we contribute to a long-term conservation of our natural resources.

For the sake of the environment
For reasons of sustainability DÖRKEN focusses on recycled containers (70%). Using reprocessed raw materials carbon dioxide can be reduced when producing containers. Quality is of course still guaranteed and shaker and transport stability are given without restrictions. Due to stability reasons lids are still produced using new material.

UNIVERSALLY APPLICABLE

BIOCIDE-FREE COATING PERFECTLY TAILORED TO YOUR REQUIREMENTS.

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