



CHEMICAL RAW MATERIALS

WORLÉE
seit 1851

WorléeCure VP 2285

Lauenburg, 20.01.2022



Agenda

General information Worlée company

WorléeCure VP 2285

- general information
- technical information
- starting point formulation



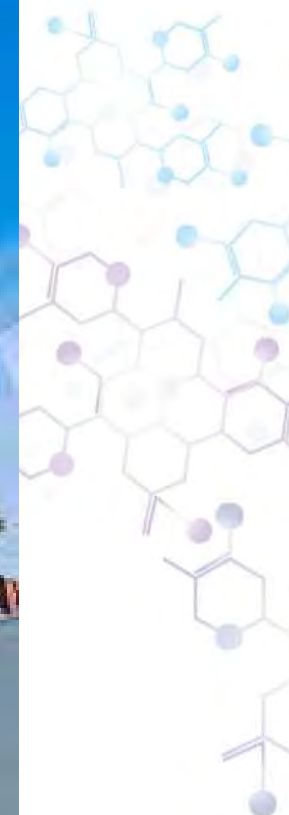
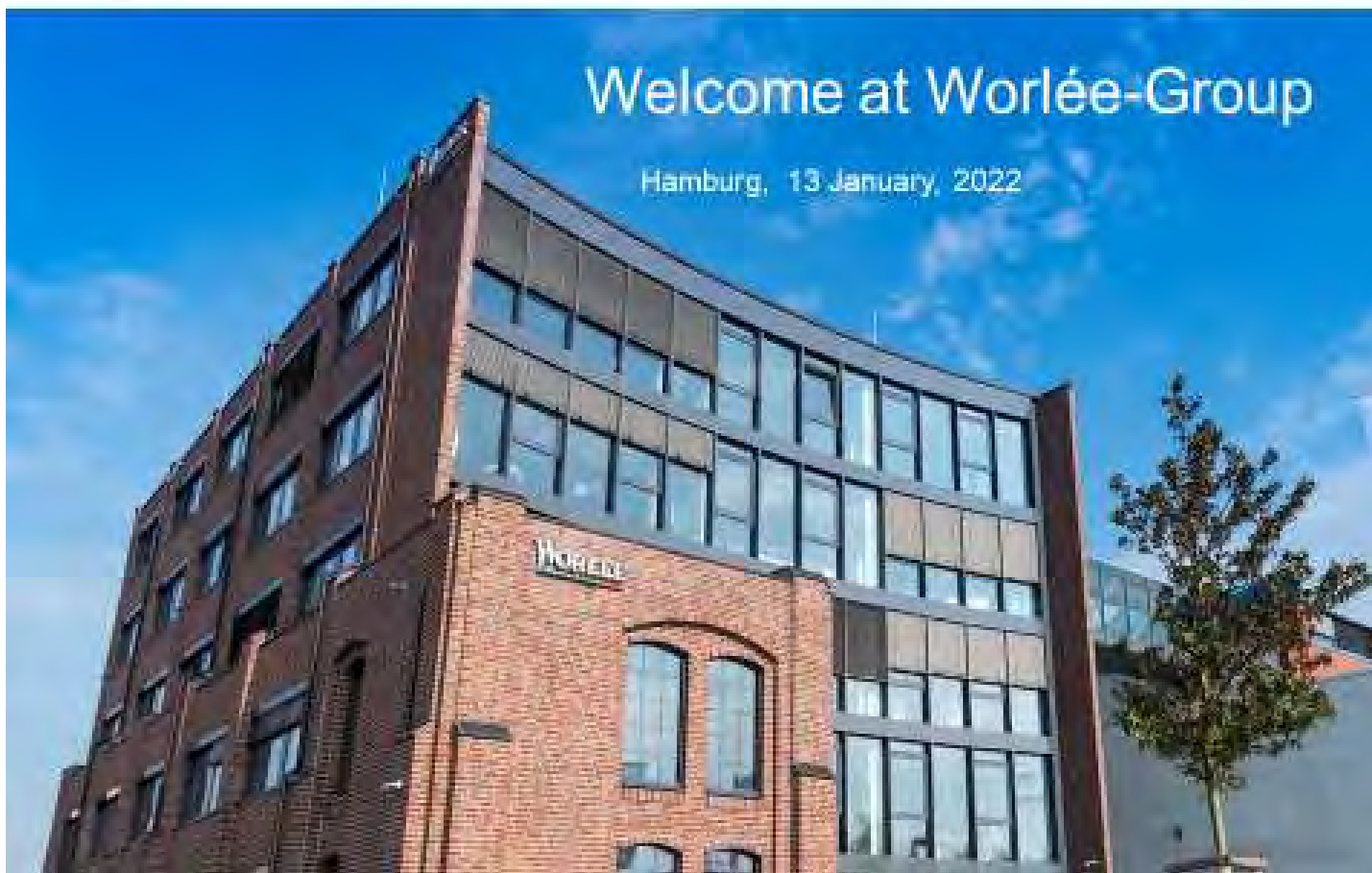


Raw Materials from Worlée –
Modules to your Success

WORLÉE
seit 1851

Welcome at Worlée-Group

Hamburg, 13 January, 2022



About Worlée

Worlée was founded in 1851 as a Hanseatic trading house and is now run by the fifth generation.



Lauenburg Site



Hamburg Site



Lübeck Site

Business Units & Core Business

Business Units:



Natural raw materials –
Worlée NaturProdukte GmbH



Chemical raw materials –
Worlée-Chemie GmbH



Cosmetic raw materials –
Worlée-Chemie GmbH

Core Business:



Refinement of raw materials



Processing of raw materials



Trade and distribution



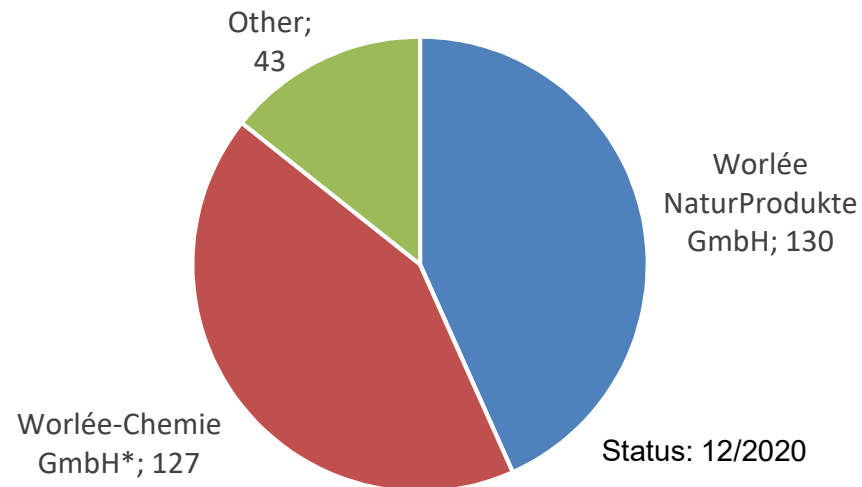
Product and application technology

We have an international distribution and supplier network for a global presence.

Worlée in numbers

Holding company:	E.H. Worlée & Co. (GmbH & Co.) KG
Equity ratio:	≈ 52%
Turnover Worlée-Group:	approx. 300 Mio. EUR
Branches in Europe & Overseas:	12

Turnover in Mio. Euro (approx.):



* excluding intercompany sales with Worlée-Chemie GmbH & Co. KG | 6 |

Business Unit: Natural Raw Materials

In addition to conventionally grown raw materials, a large number of our products are certified according to various organic and social standards.

Our goods are sourced from selected farmers around the world and refined at our Hamburg site according to the highest quality standards.



Application areas for our natural raw materials



SAVOURY



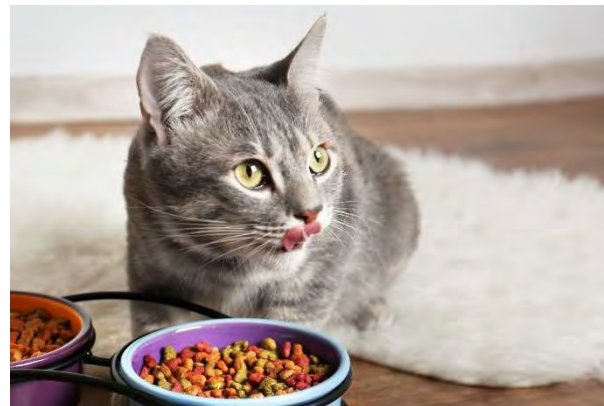
SWEETS & BAKERY



BEVERAGES



PHARMA & FLAVOURING



ANIMAL FEED

Business Unit: Chemical Raw Materials

We develop additives, binders and other important chemical raw materials. Our products are used in a wide range of industries.

Our portfolio of proprietary products is complemented by commercial products from renowned international partners.



Application areas for our chemical raw materials



WOOD



PAINT & LACQUERS



PRINTING INK



CONSTRUCTION



INDUSTRIAL COATINGS



ADHESIVES



POWDER COATINGS



MISCELLANEOUS

Business Unit: Cosmetic Raw Materials

Our portfolio for decorative and care cosmetics includes e.g. polymer chemical raw materials, pigment dispersions, aloe vera, jojoba oil, squalane as well as natural peeling and active ingredient bodies.

Together with a large network of qualified producers and partners, we find the perfect building blocks for your cosmetic innovations.



Application areas for our cosmetic raw materials



COLOR

z.B. Mascara, Eyeliner, Concealer,
Eyeshadow, Foundation, Lip Gloss,
Highlighter, Primer



CLEANSING

z.B. Shower Gel, Face Wash, Body
Scrub, Facial Scrub, Exfoliating Shower
cream, Deep Cleansing Scrub,
Shampoo



SKIN

z.B. Soft Cream, Moisturizing Cream,
Face mask, Daily Cream, Hydro gel

Amine curing agent with booster function

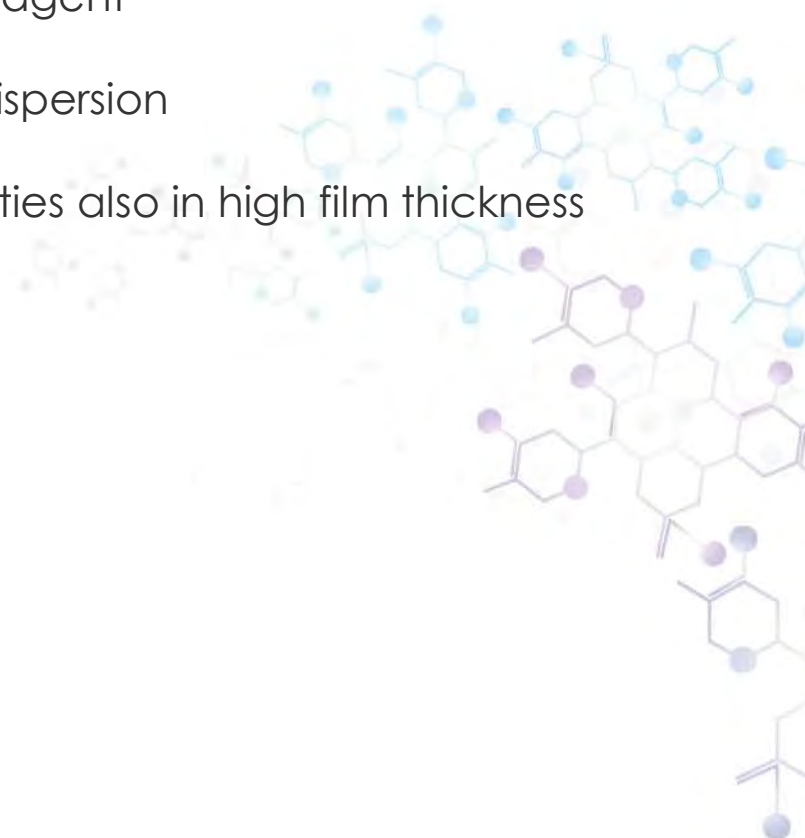
	Viscosity [mPa·s /25 °C]	HEW	Mixing Ratio [EEW 172.5]	Pot Life [23 °C – 40 °C] min LER [EEW 172.5 (Method CTP uses)]	Gel-Time min [measured]
WorléeCure VP 2285	< 10,000	86	100 : 50	approx. 10	approx.16



*bisphenole A/F with reactive diluent

Amine curing agent with booster function

- WorléeCure VP 2285 a waterbased amine curing agent
- solid content of 80%
- compatible with liquid resins and also solid resin dispersion
- it has emulsifying properties
- low shrinkage and also very good full cure properties also in high film thickness
- visible end of pot life with liquid resins



Hardness Development under dilution

Development of Shore D hardness after dilution of WorléeCure VP 2285: liquid resin Epilox T 19-34/700

Active content	16 hrs	20 hrs	24 hrs	48 hrs	1 week
80% standard	D 69	D 75	D 77	D 80	D 82
75%	D 66	D 68	D 69	D 72	D 74
70%	D 55	D 60	D 62	D 65	D 66
65%	D 60	D 61	D 62	D 67	D 70
60%	D 59	D 62	D 62	D 65	D 70



Chemical resistance with Liquid resin

Chemical resistance: with liquid resin Epilox T 19-34/700

WorléeCure VP 2285 has a good resistance against hydrocarbons, sulphuric acid and alcohols. Early water resistance is under testing.

* increasing the ratio of liquid resin to hardener results in higher resistance against acetic acid (max. 9%). But the resistance against hydrocarbons and alcohols is lower, (weight increase max. 14%) and alcohol (max. 8%).

Test liquid in accordance with DiBt	Description	Weight Increase		
		after 7 d in %	after 2 weeks %	after 4 weeks %
4	hydrocarbon	approx. 3%	approx. 4%	approx. 5%
5	alcohol	approx. 4%	approx. 4%	approx. 5%
9	acetic acid 10%*	approx. 16%	approx. 22%	approx. 29%
10	sulphuric acid 20%	approx. 2%	approx. 3%	approx. 5%



WorléeCure VP 2285 the booster for your system

WorléeCure VP 2285 technical datas

- has a gel – time of approx. 16 min
- booster function in combination with market standards
- wide range of application fields
- like primer, mortars, tile adhesives etc.
- also sealers



WorléeCure VP 2285 the booster for your system

Compared to market standards, one advantage is the short curing time in high film thickness.

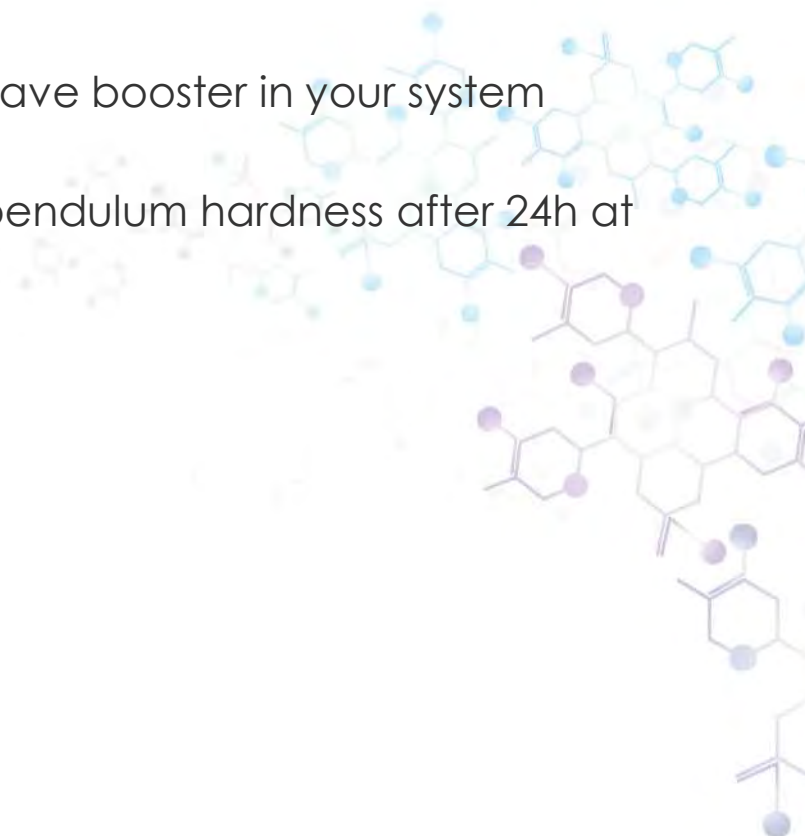
The geltime can be adapted by the right choice of resin component. Longest geltime were observed in combination with H-Epoxy. (approx. 38 minutes). Additionally our hardener is compatible with the market standards.



WorléeCure VP 2285 the booster for your system

Accelerating function with market standards

- with nearly 5% of WorléeCure VP 2285 you will have booster in your system
- f. e. from 76 sec pendulum hardness to 92 sec pendulum hardness after 24h at 20°C and 50% r.h.



Starting point formulation conductive layer

Pos.	Product	Delivery form	%	Function
1	demin. water		19.50	
2	WorléeDisperse VP 8470 W	80% water	2.70	Dispersing agent
3	WorléeAdd 6226	100%	0.55	Defoamer
4	Vulcan XC 605		10.80	Pigment
5	Schwerspat EWO		25.00	Filler
6	WorléeAdd 6410	30% water	0.30	Defoamer
7	Beckopox EP 387 w/52WA	52% water	31.65	Binder
8	demin. water		9.50	
			100.00	
9	WorléeCure VP 2285	80% water	2.72	Hardener
			102.72	



Questions?



Worlée-Chemie GmbH

Grusonstrasse 26, 22113 Hamburg

Phone: +49 40 73333 0

Fax: +49 40 73333 2450

E-mail: service@worlee.de

Worlée-Chemie GmbH

Worléestrasse 1, 21481 Lauenburg

Phone: +49 4153 5960

Fax: +49 4153 536 49

www.worlee.com



CHEMICAL RAW MATERIALS



Thank you for your attention!



**Raw Materials from Worlée –
Modules to your Success**

