

# Product list



# Raw Materials from Worlée – Modules to your Success.

“Our raw materials are important modules for our customers’ success”  
says Reinhold von Eben-Worlée, CEO and General Manager.

**F**or more than 160 years Worlée has delivered raw materials from all over the world to its customers. The hanseatic trading company has grown into an international production and service company with three business units: Chemical raw materials, natural raw materials and cosmetic raw materials.

The combination of a high quality approach, technical know-how and the intuition for trends and market developments is the reason why Worlée is a reliable partner – in all three departments.

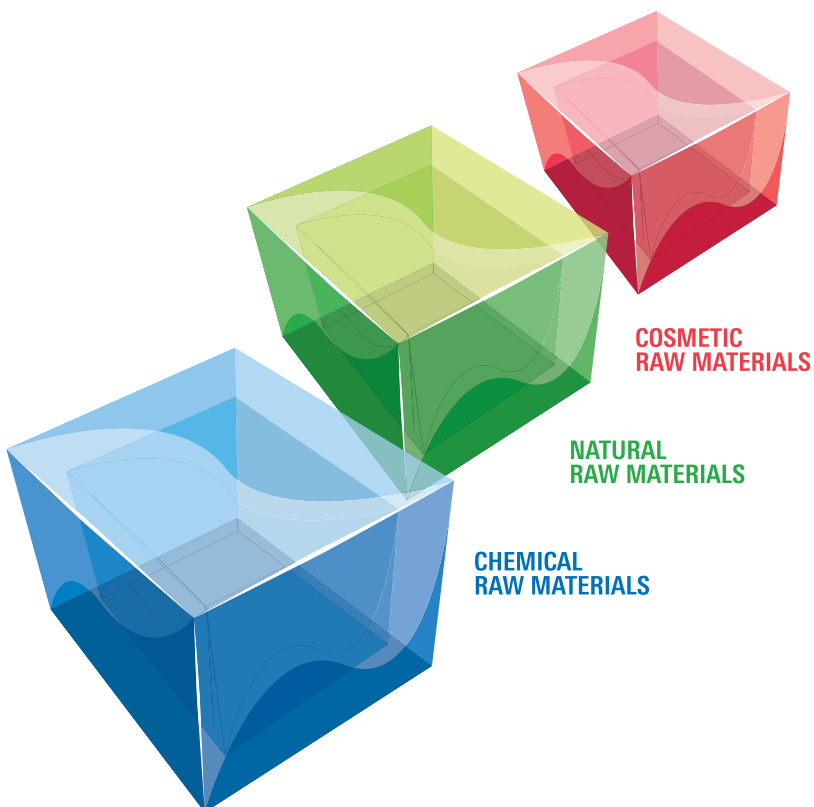
## Chemical Raw Materials from Worlée

In its plants in Lauenburg and Lübeck, Worlée-Chemie GmbH produces a broad range of binders and additives for a large variety of different coatings. Specialties from well-known suppliers complete the delivery programme.

Its production plants comply with highest environmental, quality and security standards. ISO 9001, ISO 14001, ISO 50001 and OHSAS 18001 show Worlée as a responsible company.

At Worlée, sustainability is not only a word. For its excellent management of energy, emission and resources, Worlée has received the “Responsible Care” award of VCI Nord several times and has become the first so called “Klimaschutz-Unternehmen” of its type.

Worlée’s continuous development of new and innovative products is an important contribution to the success of our customers. Module by module. Day by day.



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# Quality with long tradition

In 1851, Worlée started its business as a trading house, delivering natural resins like shellac, copal and dammar from overseas to its customers in Europe, which it still does today. Since the 1960, Worlée's main focus has been on the development and the production of high quality synthetic resins and additives, solvent- and water-based, for the paints, coatings and inks industries.



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The broad range of Worlée's own products is completed by a variety of other specialties from international producers, distributed by its Traded Products Division.

In addition, the experts in Worlée's various laboratories for R&D and application technology and its technically skilled sales force provide competent technical assistance and service to customers all over the world.

In this brochure, you will find products both from Worlée's own production and from its partners for the following fields of application:

- Decorative paints and coatings
- Industrial coatings
- Powder coatings
- Construction
- Printing inks
- Wood
- Adhesives
- Special Applications



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Various application areas for products of Worlée



# ADDITIVES

## A WorléeAdd

Silicone additives for improving surface properties in solvent-based paint systems



Type	Appearance	Form of delivery [%]	Addition [%]	Main uses and principal characteristics
W'Add 311	Clear to slightly turbid, low viscous liquids	approx. 10 approx. 30	0.1–1.0 0.03–0.3	For paints, lacquers and leather finishes, improve mar resistance, slip, flow, gloss, reduce foaming, pinholing and orange peel
W'Add 312	Clear, low viscous liquid	approx. 10	0.1–1.0	Especially for decorative paints, eliminates cell structure and brush marks, improves flow, mar resistance and slip, specially designed for aromatic free decorative paints
W'Add 315	Clear to yellow liquid	approx. 10	0.5–1.0	Additive for water and solvent-based paints, improving mar resistance and slip, flow and gloss, anti-cratering agents
W'Add 327	Clear, low viscous liquid	approx. 20	0.1–1.5	Improves wetting of plastic and aluminium substrates, increases mar resistance and slip, avoids cratering
W'Add 328	Clear to slightly yellowish liquid	100	0.2–1.0	Multifunctional paint additive for improving leveling, scratch resistance, surface smoothness and gloss, contains primary OH-groups
W'Add 356	Colourless low viscous liquid	approx. 30	0.2–1.0	For solvent-based coatings, improves deairing, levelling, mar resistance, slip and gloss, reduces orange peel and cratering, also suitable for curtain coatings, thermostable in stoving systems
W'Add 361	Colourless, low viscous liquid	approx. 10	0.1–0.5	Hammer effect additive to get hammer effect paints
W'Add 373 N	Colourless, low viscous liquid	approx. 3	0.2–1.0	Additive with multifunctional properties, used in solvent-based coatings mainly to achieve surface smoothness and mar resistance, at the same time it works as antifoam agent and avoids surface imperfections, for architectural coatings
W'Add 429	Colourless liquid	approx. 10	0.2–1.0	For improving the efficiency of matting agents in solvent-based silk gloss decorative paints, additionally improvement of flow and scratch resistance, deairing
W'Add 3585	Colourless to slightly amber liquid	100	0.01–0.5	Multifunctional additive to improve slip, leveling, scratch resistance and surface wetting

## A WorléeAdd

Adhesion promoters



Type	Appearance	Form of delivery [%]	Addition [%]	Main uses and principal characteristics
W'Add 480 N	Clear, colourless liquid	approx. 70	1.0–5.0	Special epoxy ester to improve the adhesion of aqueous baking enamels and polyurethane systems on metallic substrates
W'Add 482	Clear, slightly to dark yellowish liquid	approx. 80	2.5–5.0	Reactive polymeric adhesion promoter for improving adhesion of polyurethane- and stoving systems mostly on substrates as glass, ceramic and tiles, but also on metallic substrates
W'Add 484	Colourless to light yellow liquid	approx. 75	1.0–5.0	Special polyester resin for improving adhesion of solvent-based two component PU and stoving paints on metals substrates, improves elasticity and flow, NMP-free
W'Add 486	Colourless to light yellow, clear to slightly turbid liquid	approx. 75	1.0–3.0	Special adhesion promoter for solvent-based systems for air-drying and oven cured systems
W'Add 487	Colourless to light yellow, clear to slightly turbid liquid	75–80	1.0–3.0	Like W'Add 486, does not contain n-methyl-2-pyrrolidone

## A WorléeAdd

### Silicone additives for improving surface properties in aqueous paint systems



Type	Appearance	Form of delivery [%]	Addition [%]	Main uses and principal characteristics
W'Add 327	Clear, low viscous liquid	approx. 20	0.1–1.5	Improves wetting of plastic and aluminium substrates, increases mar resistance and slip, avoids cratering
W'Add 330^	Clear, slightly yellowish, low viscous liquid	approx. 10	0.3–0.5	For stoving systems to improve overspray take of in wet in wet applications
W'Add 345	Clear to slightly turbid yellowish liquid	approx. 71	0.3–1.5	Special modified silicone polyether for aqueous systems for improving substrate wetting and penetration on absorbing substrates
W'Add 351	Turbid, creamy, still flowing liquid	approx. 70 in butylglycol	0.1–1.0	High molecular silicone additive for outstanding slip, mar resistance and antiblockings
W'Add 352	Turbid, creamy, free-flowing liquid	approx. 70 in propylenglycol	0.1–1.0	High molecular silicone additive for outstanding slip, mar resistance and antiblockings
W'Add 3410	Clear to yellowish, low viscous liquid	approx. 50	0.2–1.5	Silicone-based surface wetting additive for aqueous paint and lacquers
W'Add 3440	Clear to yellowish, low viscous liquid	approx. 50	0.1–1.0	Silicone-based high performance surface wetting additive for aqueous paint and lacquers
W'Add 3585	Colourless to slightly amber liquid	100	0.01–0.5	Multi functional additive to improve flow, levelling, surface slip and surface wetting

## A WorléeAdd

### Cobalt-free catalysts



Type	Appearance	Form of delivery [%]	Addition [%]	Main uses and principal characteristics
W'Add 2000	Clear to slightly hazy low viscous liquid	approx. 20	0.5–1.2	Catalyst for solvent-based and aqueous isocyanate crosslinking systems
W'Add 2030	Clear, amber coloured, low viscous liquid	approx. 28	0.4–2.0	Catalyst for solvent and water-based stoving finishes, improves water, salt spray and detergent resistance
W'Add 2500	Brownish liquid	approx. 12	1.5–3.0	Cobalt-free catalyst to support the oxidative drying of alkyd resin paints, metal complex
W'Add 2550	Brownish liquid	approx. 12	1.5–3.0	Cobalt-free catalyst to support the oxidative drying of alkyd resin paints, metal complex, 2 EHA-free
W'Add 2600	Clear yellowish liquid	approx. 12	0.5–1.0	Metal-free catalyst to support the oxidative drying of alkyd resin paints together with metal complex based dryers
W'Add 2700	Clear brownish liquid	approx. 12	0.5–2.0	Cobalt-free catalyst to support the oxidative drying of aqueous systems, metal complex

## A WorléeAdd

### Corrosion inhibitors



Type	Appearance	Form of delivery [%]	Addition [%]	Main uses and principal characteristics
W'Add 456	Colourless to slightly yellowish liquid	approx. 30	0.5–2.0	Nitrit-free anti-flash rust agent and corrosion inhibitor for aqueous paints and lacquers
W'Add 458	Colourless liquid	approx. 38	0.5–2.0	Nitrit-free anti-flash rust agent for aqueous paints and lacquers

## A WorléeAdd

### Defoamers for non-aqueous systems



Type	Appearance	Form of delivery [%]	Addition [%]	Main uses and principal characteristics
W'Add 370	Colourless, low viscous liquid	approx. 10	0.03–0.5	Fluor silicone-based defoamer and deairing agent for solvent-based paints and inks of different compositions as well as EP-coatings
W'Add 372	Colourless, low viscous liquid	approx. 5	0.05–0.8	Fluor silicone-based defoamer and deairing agent for solvent-based and high solid coatings., especially for decorative paints
W'Add 425	Clear, yellowish liquid	approx. 51	0.2–1.5	Silicone-free antifoam agent and defoamer, especially suitable for wax containing coil coating structure paints and two component EP floor coatings
W'Add 602	Clear liquid	approx. 1.3	0.4–2.0	Silicone-based antifoam agent mainly for two component-PU- and EPcoatings
W'Add 603	Clear to slightly turbid, low viscous liquid	approx. 13.5	0.2–1.5	Polyacrylate modified silicone defoamer for solvent-based and solvent-free coatings of different compositions
W'Add 6235	Clear liquid	approx. 6.5	0.5–2.0	Highly effective silicone defoamer for reactive thicklayer systems based on epoxy resins
W'Add 6236	Clear to slightly turbid liquid	100	0.5–1.0	Highly effective silicone defoamer especially suitable for solvent-free PU-coatings

## A WorléeAdd

### Defoamers for aqueous systems



Type	Appearance	Form of delivery [%]	Addition [%]	Main uses and principal characteristics
W'Add 624	Clear liquid	approx. 25	0.5–1.5	Silicone-based, aromatic and APEO-free defoaming solution for water-based systems
W'Add 628	Slightly turbid liquid	approx. 66	0.1–1.0	Silicone-based defoamer solution for aqueous formulations
W'Add 6210	Turbid liquid	approx. 80	0.1–1.7	Highly efficient glycol ether-free defoamer for printing inks and overprint varnishes
W'Add 6223	Slightly turbid, yellowish liquid	approx. 50	0.1–1.0	Silicone-based, silica containing defoamer compound for aqueous systems
W'Add 6226	Colourless viscous liquid	100	0.1–1.0	Silicone-based, silica containing defoamer for aqueous formulations, very good grinding defoaming
W'Add 6420	White thixotropic liquid	approx. 26	0.1–1.0	Silicone-based, silica containing defoamer emulsion for printing inks and overprint varnishes
W'Add 6410	White thixotropic liquid	approx. 27	0.1–1.0	Silicone-based, silica containing defoamer emulsion for aqueous formulations, very good grinding defoaming, very easy incorporation; especially for PU, PU-hybrid and alkyd emulsions

## A WorléeAdd

Additives for paints and lacquers – Miscellaneous



Type	Appearance	Form of delivery [%]	Addition [%]	Main uses and principal characteristics
W'Add 412	Colourless liquid	approx. 65	0.5–1.0	Solvent-free compatibility agent for easier incorporation of driers into water-based alkyd emulsion paints
W'Add 425	Clear, yellowish liquid	approx. 51	0.2–1.5	Silicone-free additive, imparts an equal structure to coil coatings which contains wax, improves degassing, reduces popping, also for clear coats
W'Add 428	Clear low viscous liquid	approx. 10	3.0–6.0	Silicone-free additive for structured coil coatings without wax addition, for achieving orange peel effect, improves degassing
W'Add 781	Clear, medium viscous liquid	100	0.1–2.0	Silicone-free additive for solvent-based, solvent-free and water-based systems to improve levelling, flexibility and adhesion, two component-PU-coatings of high film thickness show reduced blistering
W'Add 4220	Slightly yellowish liquid	approx. 50	0.2–0.8	Cationic surface active additive for increasing the conductivity of electrostatic sprayable paint systems, low addition
W'Add 4414	Clear to slightly turbid, yellowish-brownish, low viscous liquid	approx. 65	0.1–0.5	Oxime free anti-skinning agent for solvent based air- and oven-drying alkyd systems
W'Add FR 5000	White powder	min. 98	approx. 10.0	Halogen free flame retardant based on encapsulated phosphoric compounds for water-based polymer dispersions and solvent-based polymer binders

## A Special-Primer

1 component primers for polyolefinic substrates



Type	Appearance	Form of delivery [%]	Application	Main uses and principal characteristics
Special-Primer AP 1010	White (pigmented)	approx. 4 in xylene	Undiluted: spraying, dipping, rolling, printing	Adhesion promoter for EPDM, PP and blends of these as used for the automotive industry for spoilers, bumpers, dashboards etc. for subsequent painting, printing and sticking, Special-Primer AP 1010 can be used in aerosol cans
Special-Primer AP 1030	White (pigmented)	approx. 4 in xylene	Undiluted: spraying, dipping, flow coating, rolling, printing	Adhesion promoter for EPDM, PP and blends of these as used for the automotive industry for spoilers, bumpers, dashboards etc. for subsequent painting, printing, sticking and coating
Special-Primer PE 6800	Colourless to yellowish, clear	approx. 5 in xylene	Application as 2.5 % solution	Adhesion promoter for untreated polyethylene for subsequent coating or printing
Special-Primer PP 3200 W	Low viscous, beige cream coloured liquid	approx. 30 in water	Application diluted with water to 10 % solids content by spraying, dipping or printing	Aqueous adhesion promoter based on especially modified, low chlorinated polypropylene for PP, polyolefinic blends and with restrictions for PE
Special-Primer PP 5130	Colourless to yellowish, clear	approx. 2.5 in xylene approx. 5 in xylene	Application as 2.5 % solution	Adhesion promoter for polypropylene for subsequent painting, printing, sticking, batteries, packaging film, heels, toys, foils etc.
Special-Primer PP 7550	Colourless to yellowish, clear	approx. 5 in xylene	Application as 2.5 % solution	Same as PP 5130, with improved adhesion promotion on different PP substrates
Special-Primer PP 7560	Colourless to yellowish, clear	approx. 5 in xylene	Application as 2.5 % solution	Same as PP 5130, with improved adhesion promotion on different PP substrates
Special-Primer PP 7580	Colourless to yellowish, clear	approx. 2.5 in xylene	Application as 2.5 % solution	Adhesion promoter for untreated polypropylene for subsequent painting, printing, sticking, for batteries, heels, toys, foils, garden furniture etc., best adhesion properties



# BINDERS

## B WorléeCryl

Acrylic resins, solvent-or water based, containing hydroxyl groups



Type	OH-content on solids [%]	Flash point DIN EN 22719 [°C]	Viscosity 20 °C, del form, Brookf., ISO 2555 [mPa·s]	Form of delivery [%]	Main uses and principal characteristics
W'Cryl A 1218	1.8	approx. 26	5,000–7,000	50 in BuAc 98/100	High reactivity and long pot life, for fast drying wood and furniture lacquers, CAB compatible
W'Cryl A 1220	2.0	approx. 26	1,000–2,000	60 in BuAc 98/100	Acrylate copolymer for the manufacture of high quality plastic coatings
W'Cryl A 1320	2.0	approx. 26	2,000–3,000	50 in BuAc 98/100	For high quality wood and furniture lacquers, good initial drying
W'Cryl A 2114	1.4	35–40	2,000–4,000	60 in arom. HC 155–180	For quick drying industrial coats with high gloss and good stability
W'Cryl A 2116	1.6	approx. 47	2,000–2,500	60 in arom. HC 155–180	For fast drying industrial paint with good gloss, also for decorative paint – in combination with WorléeThix A 2125 – for effect finishes
W'Cryl A 2126	2.6	approx. 23 approx. 25	1,000–3,000	60 in xylene 60 in n-BuAc	Can be crosslinked with aliphatic polyisocyanates to formulate two component systems for metal, wood and plastics, the aliphatic system shows excellent hardness, good chemical resistance and a good outdoor durability
W'Cryl A 2130	3.0	approx. 25	3,500–7,000	60 in X/BuAc/arom. HC 155–180	For two component industrial paints with good mechanical properties and high gloss with good outdoor durability
W'Cryl A 2141	4.1	approx. 26	25,000–35,000	70 in BuAc 98/100	For high quality air- and forced drying paints on metal, wood and plastics
W'Cryl A 2210	1.0	approx. 47	17,000–22,000	60 in arom. HC 155–180	For very fast drying primers and fillers with very good adhesion properties on different substrates, also usable as a one component system
W'Cryl A 2212	1.2	25–30	5,000–10,000	70 in X/BuAc	For quick drying 2C primers and top coats
W'Cryl A 2218	1.8	approx. 25	500–2,000	50 in X/BuAc (9:1)	For air- and forced drying 2 pack primers, fillers & top coats with excellent adhesion on steel, aluminium and zinc
W'Cryl A 2230 W	3.0	50–55	Viscosity: max. 6,000 mPa·s (Rheometer, 20°C, C 60/2°, 30 s <sup>-1</sup> )	44 in water/solvent blend	Water emulsified hydroxyacrylate for the production of exterior resistant isocyanate cross-linked two component top coats with outstanding drying properties, film hardness and gloss
W'Cryl A 2241 W	4.1	50–55	max. 25,000	45 in water/solvent blend	Water emulsified hydroxyacrylate for the production of isocyanate crosslinked exterior resistant two component top coats which exhibit long potlife, high gloss and good adhesion properties
W'Cryl A 2313	1.3	approx. 46	80–150 s DIN53211–4	60 in arom. HC 155–180	For quick drying 2C primers and top coats
W'Cryl A 2335	3.5	approx. 25	4,000–6,000	60 in X/BuAc/Solvelso 100 (2:1:1)	For formulating high quality air- and forced drying top and clear coats, fast hardness development and very good adhesion for different metals
W'Cryl A 2445	4.5	approx. 25 approx. 49	3,000–5,000 8,000–12,000	60 in X/BuAc/arom. HC 155–180 60 in arom. HC 155–180	For high quality industrial and machine paints; also for car repair finishes with excellent UV-stability
W'Cryl A 3160	6.0	25–30	2,000–3,000	60 in BuAc/MPA	Acrylate copolymer for the manufacture of high quality, especially resistant top coats
W'Cryl A 5125 W	approx. 2.5		max. 2,000	42 in water	A water dispersed hydroxy-acrylate for the production of isocyanate crosslinkable 2C base coats, which feature long potlife as well as great adhesive properties. The solvent free product allows glossy coatings with high layer density
W'Cryl VP A 2117	1.7	approx. 26	Rheometer, 23 °C 4,000–8,000	75 % in BuAc	Optimum adhesion, high initial hardness, good corrosion protection
W'Cryl VP A 2124	2.4	approx. 26	Rheometer 20° C 4,000–13,000	75 % in BuAc	Fast drying, good hardness development, broad adhesion properties at low viscosity
W'Cryl VP A 2136	3.6	approx. 26	Rheometer 23°C 4,000–8,000	75 % in BuAc	High initial hardness, good chemical resistance, high weather resistance
W'Cryl VP A 2226	2.6	approx. 26	Rheometer 23°C 2,000–5,000	75 % in BuAc	Good chemical resistance and high weather resistance
W'Cryl VP A 2545	4.5	approx. 26	Rheometer 23 °C, C60/2°, 50 s <sup>-1</sup> , 2,500–7,500	75 % in BuAc	High final hardness, excellent weather resistance and very good chemical resistance

## B WorléeCryl

Acrylic resins, solvent-based, containing hydroxyl groups



Type	OH-content on solids [%]	Flash point DIN EN 22719 [°C]	Viscosity 20 °C, del. form, Brookf., ISO 2555 [mPa·s]	Form of delivery [%]	Main uses and principal characteristics
W'Cryl VP A 2645	4.5	approx. 26	Rheometer 20 °C, C60/2°, 5 s-1, 5,000–15,000	79 % in BuAc	Fast drying properties, very good hardness development, high weather resistance
W'Cryl VP A 3139	3.9	approx. 26	Rheometer 20 °C, C60/2, 5 s-1 10,000–30,000	78 % in BuAc	Good hardness properties and excellent QUV resistance, elasticity properties
W'Cryl VP A 3145	4.5	approx. 26	Rheometer 23 °C, C35/1, D=250 s-1 6,000–10,000	80 % in BuAc	Extremely high flexibility. Tough elastic films

## B WorléeCryl

Acrylic resins, solvent-based, thermoplastic



Type	Flash point DIN EN 22719 [°C]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Cryl L 241	approx. 60	80–120 (40 % in isop. HC 170–200)	60 in isop. HC 170–200	Neutral low odour acrylic resin, mainly for wall and ceiling paints, very good insulating coat for nicotine, chimney and water spots, for chlorine free formulations, without plasticizer
W'Cryl L 2380	35–40	approx. 500 mPa·s (del. form, 20 °C, ISO 2555)	50 in deaerom. HC 160–200	Physically drying thermoplastic acrylic resin for different coating systems improving hardness and gloss
W'Cryl L 2580	approx. 68	Viscosity, 23 °C, del. form, Brookfield, ISO 2555, 3.000–7.000 mPa·s	70 in isop. HC 170–200	Neutral, soft, low odour acrylic resin mainly used for wall and ceiling paints, low VOC, very good insulating coat for nicotine, chimney and water spots
W'Cryl L 2822	approx. 40	Viscosity, Rheom. 23 °C, C60/2°, 50S-1, DIN EN ISO 3219, 5.000–10.000 mPa·s	70 in deaerom. HC 160–200	Self crosslinking thermoplastic acrylic copolymer to be used as resin of addition in low VOC industrial paints to improve drying and film surface hardness
	approx. 23	Viscosity, 23 °C, del. form, Brookfield, ISO 2555, 8.000–10.000 mPa·s	75 in xylene	

## B WorléeCryl

Acrylic resins, water-based dispersions, solutions



Type	Monomer	Non volat. content DIN EN ISO 3251 [%]	pH value DIN 53785	Density DIN 51757 [g/cm <sup>3</sup> ]	MFT [°C]	Viscosity 20 °C, del. form Brookfield, ISO 2555 [mPa·s]	Main uses and principal characteristics
W'Cryl 7107	Methacrylic copolymer emulsion	40	7.2–8.0	1.07	> 95	max. 500	As mixing component universally suitable for improving film hardness, sandability, blocking resistance and stackability
W'Cryl 7120	Styrene acrylic emulsion	49	8.2–9.0	1.09	15	200–800	Corrosion inhibiting primers on different metals (e.g. iron, aluminium), good weather resistance
W'Cryl 7123	Acrylic, copolymer dispersion	60 ± 1	7.0–8.0	1.07		100–500	High flexible roof coatings, sealing compounds, adhesives, excellent weather resistance
W'Cryl 7126	Acrylic dispersion	62 ± 1	5.5–6.5	1.05		100–1,000	Acrylic dispersion for the formulation of colorless joint sealers

## B WorléeCryl

Acrylic resins, water-based dispersions, solutions



Type	Monomer	Non volat. content DIN EN ISO 3251 [%]	pH value DIN 53785	Density DIN 51757 [g/cm <sup>3</sup> ]	MFT [°C]	Viscosity 20 °C, del. form Brookfield, ISO 2555 [mPa·s]	Main uses and principal characteristics
W'Cryl 7135	Styrene acrylic emulsion	42	7.5–8.5	1.04	39	max. 1,000	Topcoats on metal, wood, plastics (PS, ABS), also for temporary anti-corrosive primers on metal, can be combined with water-thinnable alkyd resins
W'Cryl 7137	Styrene acrylic emulsion	42	7.5–8.5	1.04	28	max. 200	Allround emulsion for top coats on plastic, metal, wood and for corrosion inhibiting primers with very good adhesion on steel and low water absorption
W'Cryl 7177	Core-shell-dispersion	45	7.0–8.0	1.06	5	< 500	Core-shell-dispersion for the production of solvent-free decorative paints and glazings
W'Cryl 7189	Methacrylic copolymer emulsion	49	7.0–8.0	1.08	16	max. 200	Flexible binder for wall Fast setting, high initial
W'Cryl 7410	Pure acrylic	45	8.0–9.0	1.06	39	max. 500	Self-crosslinking acrylic polymer for the formulation of aqueous furniture lacquers with good resistance against household chemicals
W'Cryl 7450	Pure acrylic emulsion	45	7.0–8.0	1.06	0	max. 500	Good blocking stability, in combination with PU-dispersion wood, parquet lacquers and top coats for wood can be formulated
W'Cryl 7461	Pure acrylic emulsion	55	7.0–8.0	1.06	0	max. 500	Self-crosslinking pure acrylic emulsion with high solid content for formulating block-resistant, high gloss emulsion paints with very good levelling properties, low VOC value in pigmented top coats, solvent-free formulations are possible for glazings and colourless systems
W'Cryl 7463	Pure acrylic emulsion	55	7.0–8.0	1.02	13	200–800	Self-crosslinking pure acrylic emulsion for the formulation of blocking resistant, high gloss brushable paints with a low VOC-content
W'Cryl 7520	Acrylic emulsion	50	8.5–9.0	1.05	14	1,600–2,400	For manufacturing dispersion paints for indoor and outdoor application and coloured quartz sand plaster
W'Cryl 7940	Acrylate copolymer emulsion	50	8.3–8.7	1.07	0	1,000–2,000	Excellently suitable for the manufacture of dispersion paints for indoor and outdoor application
W'Cryl 8025	Pure acrylic solution	25	8.0–9.0	1.02		200–800	For production of roller coatings and primers on wood
W'Cryl 7712 W	Pure acrylic solution, cationic	26	approx. 5.0	1.04		300–800	Filler and colourless sealants for wood, excellent insulating against bleeding, pigmented and transparent, nicotine insulating paints
W'Cryl CH-X-2158	Pure acrylic dispersion	~61	5.5–6.5	~1.05	0	100–1500	Special binders for production of thermal insulating coatings based on WorléeShield technology (e.g. safe-touch, anti-condensation, insulation), easy incorporation of voluminous insulation fillers such as hydrophobic aerogels (see page 13), high elasticity (CH-X-2159 > CH-X-2158) even at low temperatures, good water resistance and adhesion to various substrates, combination of both binders with WorléeAdd 8905 (see page 7) allows sprayable coatings, crackfree even in thick films, optional flame retardant properties with WorléeAdd FR 5000 (see page 7)
W'Cryl CH-X-2159	Pure acrylic dispersion	~59	5.5–6.5	~1.06	0	150–2,500	

## B WorléeDex

Starch copolymer dispersions for printing inks and OPV's



Type	Monomer	Non volat. content DIN EN ISO 3251 [%]	pH value DIN 53785	Density DIN 51757 [g/cm <sup>3</sup> ]	MFT [°C]	Viscosity 20°C, del. form Brookfield, ISO 2555 [mPa·s]	Main uses and principal characteristics
W'Dex 1177	Starch copolymer dispersion	40	3.0–5.0	1.06	28	< 800	Ammonia and amine free
W'Dex 1182	Starch copolymer dispersion	50	7.5–9.0	1.04	28	< 300	For thin papers, ammonia and amine free

Market(s) served: EUROPE

## B WorléeKyd

Alkyd resins, solvent-based, short-oil, air-drying



Type	Oil [%] in approx.	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Kyd AC 2550	25	Drying vegetable fatty acids	17	max. 5 (50 % in ws 135–175)  max. 5 (50 % in dearom. HC 140–165)	max. 10	150–210 (50 % in ws 135–175)  200–260 (50 % in dearom.HC 140–165)	60 in white spirit 135–175  60 in dearomat. HC 140–165	Is mainly recommended for very fast drying primers and top coats
W'Kyd AC 2551	25	Drying vegetable fatty acids	17	max. 5 (50 % in xylene)	max. 10	90–150 (50 % in xylene)	60 in xylene	Is mainly recommended for very fast drying primers and top coats
W'Kyd AC 2943	29	Drying vegetable fatty acids	approx. 19	max. 5 (50 % in xylene)  max. 5 (50 % in BuAc)	max. 12	30–60 (50 % in xylene)  30–60 (50 % in BuAc)	75 in xylene  75 in BuAc	Is mainly recommended for fast drying low VOC primers, outstanding broad adhesion on different substrates, a very good recoatability and good corrosion protective properties
W'Kyd L 138	38	Linseed and tung oil	19	max. 10 (50 % in xylene)	max. 15	250–300 (50 % in xylene)	60 in xylene	Phenolic mod., for fast drying primers and top coats, putties and fillers
W'Kyd LH 3702	38	Linseed and tung oil	25	max. 10 (40 % in dearom. HC 160–200)	max. 20	90–130 (40 % in dearom. HC 160–200)	50 in dearom. HC 160–200	Dearomatic base and top coats, air-drying
W'Kyd MH 38	39	Mixed fatty acids and tung oil	38	max. 15 (50 % in xylene)	max. 25	140–170 (50 % in xylene)	60 in xylene	Primers and top coats, good elasticity and resistance properties
W'Kyd MH 42	42	Drying vegetable fatty acids	24	max. 15 (50 % in ws 135–175)  max. 15 (50 % in dearom. HC 140–165)	max. 20	120–150 (50 % in ws 135–175)  50–70 (40 % in dearom. HC 140–165)	60 in ws 135–175  60 in dearom. HC 140–165	Primers and topcoats, "Laroflex" (BASF) compatibility
W'Kyd MH 439	39	Mixed fatty acids	32	max. 10 (50 % in xylene)  max. 10 (50 % in ws 135–175/ Solv.PM)	max. 25	100–130 (50 % in xylene)  140–170 (50 % in ws 135–175/Solv. PM)	60 in xylene  60 in ws 135–175/ Solv.PM	Phenolic-modified, fast drying primers and top coats, "Laroflex" (BASF) compatibility
W'Kyd S 3001	30	Drying vegetable fatty acids	35	max. 10 (50 % in xylene/ Solv.PM 8:2)	max. 12	20–35 (50 % in xylene/ Solv. PM)	75 in xylene/ Solv. PM (8:2)	Low viscous, fast drying alkyd resin for manufacturing low VOC industrial primers and top coats
W'Kyd SM 340	40	Drying vegetable fatty acids	30	max. 10 (50 % in xylene)	max. 20	130–170 (50 % in xylene)	60 in xylene	Fast drying primers and top coats, good elasticity, good resistance properties
W'Kyd SM 400	34	Drying vegetable fatty acids	30	max. 10 (50 % in xylene)	max. 20	90–110 (50 % in xylene)	60 in xylene	Fast drying primers and paints with excellent durability, with amino resins reactive stoving eTypes with good stability, "Laroflex" (BASF) compatibility
W'Kyd SM 426	26	Drying vegetable fatty acids	40	max. 10 (50 % in xylene)	max. 15	90–110 (50 % in xylene)	60 in xylene	Very fast drying alkyd resin for air- and forced drying primers and top coats
W'Kyd SM 433	33	Drying vegetable fatty acids	38	max. 10 (50 % in xylene)	max. 15	60–80 (50 % in xylene)	60 in xylene	Fast drying primers and top coats, high solids, low thermoplasticity, partial "Laroflex" (BASF) compatibility
W'Kyd TT 3502	35	Drying vegetable fatty acids	24	max. 15 (60 % in xylene)	max. 20	60–70 (60 % in xylene)	80 in xylene	Low viscous, fast drying alkyd resin for low VOC industrial primers
W'Kyd V 298	38	Drying vegetable fatty acids	25	max. 10 (40 % in ws 135–175)	max. 20	90–130 (40 % in ws 135–175)	55 in ws 135–175	Fast drying primers, very good elasticity and durability, dilutable with white spirit

## B WorléeKyd

Alkyd resins, solvent-based, medium-oil, air-drying



Type	Oil [%] in approx.	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Kyd B 845	45	Special fatty acids	25	max. 10 (40 % in ws 145–195)  max. 10 (del. form)	max. 15	80–100 (40 % in ws 145–195)  5,500–8,000 mPa·s (Rheometer 20 °C, C35/1°, 100 s-1)	55 in ws 145–195  70 in xylene	Fast drying radiator paints, automotive and machinery refinishing enamels with good gloss, Laroflex (BASF) compatibility
W'Kyd B 850 U	45	Special fatty acids	17	max. 10 (40 % in ws 145–195)	max. 15	80–120 (40 % in ws 145–195)	50 in ws 145–195/xylene	Extremely fast drying, urethane-modified, for primers and topcoats, good recoatability
W'Kyd B 4901	49	Cotton oil	24	max. 10 (40 % in dearomat. HC 160–200)	max. 12	60–70 (40 % in dearomat. HC 160–200)	50 in dearomat. HC 160–200	Fast drying, for air- and forced drying industrial, vehicle and machine paints as well as dearomat. do-it yourself and radiator paints
W'Kyd B 4901 nv	49	Cotton oil	24	max. 10 (55 % in dearomat. HC 160–200/ methoxypropanol 3/1)	max. 12	65–75 (55 % in dearomat. HC 160–200/ methoxypropanol 3/1)	75 in dearomat. HC 160–200/ methoxypropanol 3/1)	Fast drying, for air- and forced drying industrial, vehicle and machine paints as well as dearomat. do-it yourself and radiator paints
W'Kyd BS 830	45	Special fatty acids, silicone modified	17	max. 10 (50 % in ws 145–195)  max. 10 (50 % in isop. HC 170–200)  max. 10 (50 % in dearomat. HC 160–200)	max. 15	55–70 (50 % in ws 145–195)  170–220 (50 % in isop. HC 170–200)  120–150 (50 % in dearomat. HC 160–200)	60 in ws 145–195  60 in isop. HC 170–200  60 in dearomat. HC 160–200	Silicone-modified alkyd resin for high quality industrial and maintenance paints with very good drying properties, high gloss retention and corrosion resistance
W'Kyd BS 5005	50	Special vegetable fatty acids	15	max. 5 (50 % in dearomat. HC 160–200)	max. 15	25–40 (50 % in dearomat. HC 160–200)	80 in dearomat. HC 160–200	Low viscous, air-drying, silicone-modified alkyd resin for industrial and house paints, low VOC
W'Kyd BSA 5015	49	Special vegetable fatty acids		max. 5 (60 % in dearomat. HC 160–200)	max. 12	40–60 (60 % in dearomat. HC 160–200)	85 in dearomat. HC 160–200	Low viscous, air-drying, especially modified alkyd resin with good resistance properties for decorative and house paints, low VOC
W'Kyd BT 5001	50	Special vegetable fatty acids	24	max. 10 (50 % in dearomat. HC 160–200)	max. 12	60–70 (50 % in dearomat. HC 160–200)	65 in dearomat. HC 160–200	Fast drying alkyd resin for low VOC house paints and dearomatized machine-, industrial and D.I.Y.-paints
W'Kyd FC 555	55	Special fatty acids	16  18	max. 10 (40 % in isop. HC 170–200)  max. 10 (40 % in dearomat. HC 160–200)	max. 10  max. 10	70–100 (40 % in isop. HC 170–200)  35–50 (40 % in dearomat. HC 160–200)	50 in isop. HC 170–200  55 in dearomat. HC 160–200	Fast drying, low odour and dearomatized radiator and D.I.Y.-paints with high gloss and good yellowing resistance
W'Kyd S 351	51	Soya oil	23	max. 10 (40 % in dearomat. HC 180–220)  max. 10 (40 % in dearomat. HC 180–220)	max. 15	130–170 (40 % in dearomat. HC 180–220)  25–35 (40 % in dearomat. HC 180–220)	50 in dearomat. HC 180–220  60 in dearomat. HC 180–220	White undercoatings, mat and semi gloss enamels with good flow properties

## B WorléeKyd

Alkyd resins, solvent-based, medium-oil, air-drying



Type	Oil [%] in approx.	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Kyd S 351 nv nv	51	Soya oil	23	max. 10 (del. form)	max.15	9,000–16,000 mPa·s (Rheometer 20 °C, C35/1°, 100 s-1)	60 in isop. HC 170–200	Undercoatings, silk-gloss and mat enamels with good flow properties
W'Kyd S 549	50	Soya oil	27	max. 10 (40 % in ws 145–195)  max. 10 (45 % in ws 135–175)	max.15	50–65 (40 % in ws 145–195)  100–130 (45 % in ws 135–175)	55 in ws 145–195  55 in ws 135–175	Fast drying automotive and machinery refinishing enamels
W'Kyd S0 554	55	Soya oil	15	max. 10 (40 % in isop. HC 170–200)	max.10	70–100 (40 % in isop. HC 170–200)	55 in isop. HC 170–200	Fast drying, low odour, de-aromatized machinery ind. and D.I.Y. paints
W'Kyd V 162	41	Special fatty acids	28	max. 10 (40 % in ws 145–195)	max.20	40–70 (40 % in ws 145–195)	55 in ws 145–195/X	Extremely fast drying car refinishing, machinery and industrial paints with high gloss, good through drying
W'Kyd V 162 nv	43	Special fatty acids	23	max. 10 (50 % in ws 135–175)	max.10	130–150 (50 % in ws 135–175)	60 in ws 135–175	Extremely fast drying car refinishing, machinery and industrial paints with high gloss, good through drying
W'Kyd V 543	50	Special fatty acids	24	max. 10 (40 % in ws 145–195)	max.15	50–70 (40 % in ws 145–195)  80–120 (40 % in ws 145–195)	55 in ws 145–195/X  55 in ws 145–195	Fast drying car refinishing, machinery and industrial paints with high gloss, good through-drying

## B WorléeKyd

Alkyd resins, solvent-based, long-oil, air-drying



Type	Oil [%] in approx.	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Kyd AC 6030	60	Special vegetable fatty acids		max. 5 (70 % in dearomat. HC 160–200)	max. 10	65–105 (70 % in dearomat. HC 160–200)	85 in dearomat. HC 160–200	Acrylated alkyd resin with good and yellowing resistance, mainly for the use in low VOC house and decorative paints
W'Kyd B 865	65	Cotton/Soya	22	max. 8 (50 % in ws 145–195)	max. 15	70–90 (50 % in ws 145–195)	60 in ws 145–195	High quality house, decorative and D.I.Y.-paints with good flow, high gloss, good outdoor resistance
W'Kyd B 865 nv	65		22	max. 8 (50 % in dearomat. HC 160–200)	max. 15	40–50 (dearomat.HC 160–200)	65 in dearomat. HC 160–200	
W'Kyd B 868	68	Vegetable fatty acids	21	max. 10 (50 % in dearomat. HC 160–200)	max. 15	20–40 (50 % in dearomat. HC 160–200)	70 in dearomat. HC 160–200	High quality gloss paints, excellent brushability, gloss retention and good drying properties
W'Kyd R 6048	68	Vegetable fatty acids		max. 10	max. 15	Viscosity: 2,500–6,500 mPa·s (Rheometer, 20 °C, C 35/1°, 250 s <sup>-1</sup> )	75 in dearomat. HC 160–200	Long-oil low-viscosity drying alkyd based on vegetable fatty acids for high quality air-drying gloss paints
W'Kyd B 870	69	Vegetable fatty acids	21	max. 10 (60 % in ws 145–195)	max. 15	60–80 (60 % in ws 145–195)	75 in ws 145–195	House paints with good brushability, high film build, good flow and excellent gloss retention
				max. 10 (60 % in isop. HC 170–200)		90–130 (60 % in isop. HC 170–200)	75 in isop. HC 170–200	
		Vegetable fatty acids		max. 10 (60 % in dearomat. HC 160–200)		60–80 (60 % in dearomat. HC 160–200)	75 in dearomat. HC 160–200	
				max. 10 (60 % in dearomat. HC 180–200)		100–125 (60 % in dearomat. HC 180–200)	75 in dearomat. HC 180–200	
W'Kyd E 55	63	Special fatty acids, urethane- modified	17	max. 10 (60 % in ws 145–195)	max. 10	200–300 (60 % in ws 145–195)	70 in ws 145–195	In comb. with medium-oil alkyds for high quality car repair finishes and industrial paints
				max. 10 (55 % in dearomat. HC 160–200)		50–80 (55 % in dearomat. HC 160–200)	70 in dearomat. HC 160–200	
W'Kyd L 6800	68	Linseed oil	22	max. 10 (50 % in dearomat. HC 160–200)	max. 10	Viscosity: 4,500- 6,000 mPa·s (Lff., 23°C, DIN 53015)	81 in dearomat. HC 160–200	Anti-corrosive, D.I.Y.- and house-paints with high film build and good flow properties
W'Kyd L 7904	79	Linseed oil		max. 10 (del. form)	max. 15	Viscosity: approx. 100 % 8,000–10,000 mPa·s (20 °C, Haake Rotovisko, C 35/1, D = 250 s <sup>-1</sup> )	approx. 100	High solid clear lacquers, wood glazings, and high solid primers
W'Kyd L 8004	80	Linseed oil		max. 10 (del. form)	max. 15	30–40 (70 % in dearomat. HC 160–200)	98–100	Very low viscous alkyd resin for wood impregnation and wood glazings
W'Kyd P 151	64	Special fatty acids	22	max. 10 (80 % in ws 145–195)	max. 10	130–190 (80 % in ws 145–195)	approx. 100	Very low viscous, for high conc. pigment preparations, very good compatibility properties

## B WorléeKyd

Alkyd resins, solvent-based, long-oil, air-drying



Type	Oil [%] in approx.	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Kyd R 6048	68	vegetable fatty acids	20	max. 10	max. 15	Rheometer, 20 °C, C 35/1°, 250 s-1 2,500–6,500 mPa.s	75 % in dearomat. HC 160-200	Fast drying and good hardness development
W'Kyd R 6051	66	vegetable fatty acids	17	max. 10	max. 15	Rheometer 20 °C, C 35/1°, 250 s-1, 5,000–12,000 mPa.s	90 % in dearomat. HC 160–200	Decorative paints good hardness development and outdoor durability and good sandability
W'Kyd RL 1290	90	Linseed oil		max. 15	max. 15	Viscosity: 500 mPa*s (Rheometer, 20°C, C 35/1°, 250 s¹)	approx. 100	Extremely low viscous alkyd resin, especially suitable for the manufacture of low VOC an VOC-free parquet-, terrace- and maintenance oils and also of wood stains and glazings; it shows especially very good penetration, permanent elasticity and weather resistance
W'Kyd RS 2174	74	Special fatty acids		< 10	max. 6	Viscosity: < 750 mPa.s (Rheometer, 20 °C, C35/1°, 250 s¹)	solvent-free	Combination resin for other alkyd resins, improving penetration, decreasing viscosity, VOC reduction, sole binder for wood care and coating products
W'Kyd S 6400 hv	63	Soya oil	26	max. 10 (50 % in dearomat. HC 160–200)  max. 10 (50 % in dearomat. HC 180–220)	max.12	120–150 (50 % in dearomat. HC 160– 200)  120-150 (50 % in dearomat. HC 180–220)	60 in dearomat. HC 160–200  60 in dearomat. HC 180–220	Consumer, decorative, D.I.Y.- and anti-corrosive paints
W'Kyd S 23	73	Soya oil	0	max. 8	max. 11	Haake Rotovisko, 35/1, D=50 s-1 47,000–55,000 mPa.s	100 %	Good pigment wetting, binder can also be used in offset printing inks
W'Kyd S 7304	73	Soya oil	20	max. 8 (del. form)	max.11	Viscosity: 47,000–55,000 mPa.s (20 °C, Haake Rotovisko, C 35/1, D = 50 s-1)	approx. 100	Low viscous, air-drying, long-oil alkyd resin for decorative and house paints, low VOC
W'Kyd SB 6401	64	Special fatty acids	19	max. 10 (70 % in dearomat. HC 180–220)  max. 10 (70 % in dearomat. HC 160–200)	max.18	80–120 (70 % in dearomat. HC 180–220)  60–80 (70 % in dearomat. HC 160–200)	90 in dearomat. HC 180–220  98–100	Low viscous, air-drying, long-oil alkyd resin for decorative and house paints, low VOC
W'Kyd SC 965	65	Special vegetable fatty acids	22	max. 10 (50 % in dearomat. HC 180–220)	max.15	35–50 (50 % in dearomat. HC 180–220)	70 in dearomat. HC 180–220	High quality house paints, very good brushability, flow and levelling, high gloss
W'Kyd SD 7003	70	Special vegetable fatty acids		max. 10 (60 % in dearomat. HC 160–200)	max.15	Viscosity: 4,000–12,000 mPa.s (20°C, Rheometer, C35/1°, 250 s-1)	85 in dearomat. HC 160–200	Low viscous, air-drying, long-oil alkyd resin for decorative and house paints, low VOC
W'Kyd SD 7200	72	Special vegetable fatty acids		< 10 (60 % in dearomat. HC 160–200)	< 15	2,000–5,000 mPa.s (20 °C, Rheometer, C35/1°, 250 s-1)	85 in dearomat. HC 160–200	Low viscous, long-oil air-drying alkyd resin for the production of decorative and house paints, low VOC
W'Kyd SD 8300	83	Special fatty acids		max. 10	max.15	Viscosity, Rheometer, 20 °C, C35/1°, 100 s-1: 3,000–5,000 mPa.s	approx. 100	Low viscous, air-drying, long-oil alkyd resin for decorative and house paints, low VOC, especially suitable as combination partner for other alkyd resins

## B WorléeKyd

Alkyd resins, solvent-based, long-oil, air-drying



Type	Oil [%]	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W*Kyd T 7800	78	Special vegetable fatty acids		< 10	max.15	Viscosity, Rheometer, 20 °C, C 35/1°, 100 s -1: 6,500–12,000 mPa.s	approx. 100	Low viscous, air-drying, long-oil alkyd resin for house paints, glazings, D.I.Y.- and anticorrosive-paints

## B WorléeKyd

Alkyd resins, solvent-based, long-oil, urethane-modified



Type	Oil [%]	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W*Kyd B 865 U	62	Vegetable fatty acids	16	max. 10 (50 % in ws 145–195) max. 10 (50 % in isop. HC 170–200) max. 10 (50 % in dearomat. HC 180–220) max. 10 (50 % in dearomat. HC 160–200)	max. 10	70–100 (50 % in ws 145–195) 80–100 (50 % in isop. HC 170–200) 80–100 (50 % in dearomat. HC 180–220) 70–90 (50 % in dearomat. HC 160–200)	55 in ws 145–195 55 in isop. HC 170–200 55 in dearomat. HC 180–220 55 in dearomat. HC 160–200	Urethane-modified, for wood varnishes, floor coatings and industrial primers and top coats
W*Kyd B 865 U nv	62	Vegetable fatty acids	16	max. 10 (50 % in dearomat. HC 180–220)	max. 10	45–60 (50 % in dearomat. HC 180–220)	60 in dearomat. HC 180–220	Urethane-modified, for wood varnishes, floor coatings and industrial primers and top coats
W*Kyd S 5703	57	Soya oil fatty acids	21	max. 5 (50 % in ws 145–195) max. 8 (50 % in dearomat. HC 160–200)	max. 10	Viscosity: 5,000–7,000 mPa.s (Lff., 20 °C, DIN 53015) 40–55 (45 % in dearomat. HC 160–200)	55 in ws 145–195	Aliphatic urethane-modified alkyd resin, use as B 865 U with better yellowing resistance
W*Kyd S 6003	60	Soya oil fatty acids	19 16	max. 10 (40 % in dearomat. HC 160–200) max. 10 (del. form)	max. 5	23–33 (40 % in dearomat. HC 160–200) 2,500–3,500 mPa.s (Lff., 20 °C, DIN 53015)	51 in dearomat. HC 160–200 50 in isop. HC 150–180	Use as B 865 U with faster drying and harder film properties
W*Kyd S 6003 hv	59	Soya oil fatty acids	18	max. 10 (40 % in dearomat. HC 160–200)	max. 5	30–40 (40 % in dearomat. HC 160–200)	50 in dearomat. HC 160–200	Use as S 6003 with even faster drying
W*Kyd SD 6403	64	Special fatty acids	12	max. 6 (45 % in dearomat. HC 160–200)	max. 10	55–80 (45 % in dearomat. HC 160–200)	55 in dearomat. HC 160–200	Special urethane-modified alkyd resin with good adhesion properties e.g. for renovation coatings on UV parquet sealers

## B WorléeKyd

Alkyd resins, long-oil, urethane-modified



Type	Oil [%]	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Kyd SD 6803	68	Special vegetable fatty acids		max. 10 (60 % in deaomat. HC 160–200)	max. 15	Viscosity, Rheometer, 20 °C, C35/1°, 250 s–1: 7,000–10,000 mPa·s	75 in deaomat. HC 160–200	Low viscous, urethane alkyd resin for decorative and house paints, low VOC, especially suitable as combination partner to improve drying, through drying and hardness
W'Kyd V 5241 U	81	Linseed oil		max. 10 (del. form)	max. 3	Viscosity: 10,000–15,000 mPa·s (Lff., 20 °C, DIN 53015)	approx. 100	Low viscous, oil-modified polyurethane for high-solid environmentally friendly coating systems

## B WorléeKyd

Alkyd resins, solvent-based, stoving/reactive/NC-combination



Type	Oil [%] in approx.	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Kyd C 628	28	Saturated fatty acids	47	max. 10 (50 % in xylene)	max. 15	40–60 (50 % in xylene)	70 in xylene	High quality non yellowing stoving enamels, NC- and PU-coatings, colourless and pigmented, OH-content (on solids) 2.0–2.4 %
W'Kyd C 632 M	32	Specially modified fatty acids	37	max. 10 (50 % in BuAc)	max. 18	40–60 (50 % in BuAc)	65 in BuAc	NC-lacquers with properties as acid curing systems but without formaldehyde, aromatic free, hydroxyl-content (on solids) 2.7–3.3 %
W'Kyd C 640	38	Saturated fatty acids	37	max. 10 (60 % in BuAc)	max. 15	40–60 (50 % in BuAc)	60 in BuAc	NC-lacquers with fast solvent release, good yellowing resistance and recoatability for paper and wood
W'Kyd C 641	42	Saturated fatty acids	32	max. 10 (50 % in xylene)	max. 15	60–80 (50 % in BuAc)	80 in BuAc	High quality NC-lacquers and one component acid curing finishes with high film build and fast solvent release, for wood, foil and paper
W'Kyd C 9002 W	57	Special vegetable fatty acids	0	max. 10	max. 15	Rheometer, 20 °C, C35/1°, 50 s–1, 10–30 Pa·s	approx. 100 %	Odourless, high filling properties and hiding power, good elasticity
W'Kyd C 743 hs	12	Synthetic fatty acids	40	max. 10 (60 % in aromat. HC 155–180)	max. 20	40–60 (60 % in aromat. HC 155–180)	80 in aromat. HC 155–180	High solids one component stoving paints with high reactivity and very good mechanical properties, OH-content (on solids) 3.0–3.6 %
W'Kyd CD 32	32	Special fatty acids	48	max. 8 (45 % in xylene)	25–40	80–130 (45 % in xylene)	60 in xylene	In combination with suitable amino resins for very reactive primers and top coats with good storage stability, crosslinking with isocyanate is also possible, OH-content (on solids) 2.6–3.0 %
W'Kyd M 932	32	Vegetable fatty acids	38	max. 10 (40 % in xylene)	max. 18	40–60 (40 % in xylene)	60 in xylene	Stoving primers and topcoats with high reactivity and good mechanical properties. Excellent viscosity stability, stoving cond. 100–140 °C
W'Kyd RM 232	32	Conjug. and saturated fatty acids	37	max. 10 (50 % in xylene)	max. 15	100–120 (50 % in xylene)	60 in xylene	Enamel basecoats and topcoats with medium reactivity and good mechanical properties, curing conditions: 30 min/130 °C or 10 min/160 °C
W'Kyd SH 380	38	Special fatty acids	34	max. 10 (60 % in BuAc)	max. 15	90–110 (60 % in BuAc)	70 in BuAc	Highly reactive SH lacquers, good elasticity, durability and sufficient pot life, NC-compatible, NCO-crosslinkable

## B WorléeKyd

Alkyd resins, solvent-based, stoving/reactive/NC-combination



Type	Oil [%] in approx.	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Kyd SM 400	34	Drying vegetable fatty acids	30	max. 10 (50 % in xylene)	max. 20	90–110 (50 % in xylene)	60 in xylene	In combination with amino resins for high reactive stoving primers and top coats
W'Kyd SM 426	26	Drying vegetable fatty acids	40	max. 10 (50 % in xylene)	max. 15	90–110 (50 % in xylene)	60 in xylene	In combination with amino resins for high reactive stoving primers and top coats
W'Kyd T 735	36	Tall oil	35	max. 10 (50 % in xylene)	max. 15	60–70 (50 % in xylene)	60 in xylene	Stoving primers and topcoats with medium reactivity and good mechanical properties, curing conditions: 10 min./160 °C or 30 min./130 °C

## B WorléeThix

Alkyd resins, acrylic resins, solvent- or water-based, thixotropic



Type	Oil [%] in approx.	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Viscosity, optical	Form of delivery [%]	Main uses and principal characteristics
W'Thix A 1420		2.0 % OH-content		approx. 1 (del. form)	max. 12	Thixotropic soft gel	50 in BuAc	Thixotropic, hydroxyfunctional pure acrylate for two component finishing lacquers
W'Thix A 2125		2.5 % OH-content		max. 1 (del. form)		Thixotropic gel	50 in xylene	Thixotropic styrene acrylic for thick layer coatings and textured finishes
W'Thix A 2126		approx. 2.3 % OH-content		approx. 1		Thixotropic gel	60 in xylene 60 in 1-met oxy-2-propyl acetate 60 in BuAc	Can be crosslinked with aliphatic polyisocyanates to formulate two component systems for metal, wood and plastics; the aliphatic system shows excellent hardness, good chemical resistance and a good outdoor durability
W'Thix A 2313		1.3 % OH-content		approx. 1 (del. form)		Thixotropic soft gel	60 in aromat. HC 155–180	Thixotropic acrylic resin which can be crosslinked with isocyanates for air- and forced drying industrial paints
W'Thix L 8050	80	Linseed oil fatty acids		max. 10 (del. form)	max. 15	Thixotropic soft gel	100	Thixotropic, long-oil alkyd resin, mostly used for wood glazings, useable as sole binder as well
W'Thix SD 6051	60	Special fatty acids	23	max. 10 (del. form)	max. 15	Thixotropic gel  Thixotropic gel	55 in dearomat. HC 160–200  55 in dearomat. HC 180–220	As V 747, but with improved resistance against polar substances
W'Thix 670 hs	61	Special mixed fatty acids	21	max. 10 (del. form)	max. 15	Thixotropic gel	70 in dearomat. HC 160–200  70 in dearomat. HC 180–220	Thixotropic long-oil alkyd for primers, fillers, gloss and silk gloss coatings, low VOC

## B WorléeThix

Alkyd resins, acrylic resins, solvent-based, thixotropic

Type	Oil [%] in approx.	Oil type	Phth. anhyd. [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Viscosity, 20 °C Dmax=391/s DIN 53018, part 1 [mPa·s]	Form of delivery [%]	Main uses and principal characteristics
W'Thix V 727	63	Special mixed fatty acids	23	max. 10 (del. form)	max. 15	3,000–4,000	Thixotropic gel	Thixotropic long-oil alkyd for semi gloss house paints, primers, wood stains and anticorrosive paints
						4,000–6,000	Thixotropic gel	
						4,200–4,800	Thixotropic gel	
W'Thix V 747	64	Special fatty acids	23	max. 7 (del. form)	max. 15	5,000–7,000	Thixotropic gel	Thixotropic long-oil alkyd for primers, mat wall and silk gloss paints and thixotropic glossy decorative and protective house paints
						5,000–7,000	Thixotropic gel	
W'Thix VP E 165 W	44				max. 30	Thixotropic strong gel	Thixotropic gel	strong thixotropic gel out of waterborne urethane modified alkyd emulsion
W'Thix VP E 166 W	44				max. 30	Thixotropic strong gel	Thixotropic gel	Strong thixotropic gel out of waterborne urethane modified alkyd emulsion

## B WorléeSol E

PU-modified alkyd emulsions, water-thinnable



Type	Oil [%]	Acid value DIN EN ISO 3682 [mgKOH/g]	pH value DIN 53785	Viscosity 20°C, del. form Brookfield, ISO 2555 [mPa·s]	Form of delivery [%]	Main uses and principal characteristics
W'Sol E 150 W	44	max. 30	7.0–8.0	50–1,500	40 in water	Medium-oil alkyd emulsion for high gloss decorative, D.I.Y.- and industrial-paints, most versatile type
W'Sol E 330 W	33	15–20	7.5–8.5	max. 10,000	42 in water	Short-oil alkyd emulsion for (drier-free based) anticorrosive primers and top coats
W'Sol E 530 W	53	max. 38	7.0–8.5	max. 10,000	30 in water	Medium-oil alkyd emulsion for fast drying wood paints and lacquers
W'Sol E 927 W	28	max. 30	6.8–7.5	max. 10,000	40 in water	Short-oil alkyd emulsion for fast curing wood coatings of all types (also drier-free)
W'Sol SE 420 W	42	max. 30	7.0–8.5	max. 5,000	40 in water	Medium-oil silicone modified alkyd emulsion for high gloss paint systems (also decorative) with excellent outdoor resistance
W'Sol VP E 380 W	39	15–25	7.0–8.0	max. 10,000 mPa·s	42 in water	Less yellowing PU alkyd emulsion with low odour

## B WorléeSol NW

Alkyd emulsions, water-thinnable



Type	Oil [%]	Density DIN 51757 [g/cm <sup>3</sup> ]	Viscosity 20 °C, del. form. Brookfield, ISO 2555 [mPa·s]	Form of delivery [%]	Main uses and principal characteristics
W'Sol NW 410	40	1,050	max. 3,000	46 in water	Solvent-free medium-oil special modified alkyd emulsion for water-thinnable decorative and D.I.Y. paints with good brushability, flow and filling properties, for high gloss top coats and wood protection stains
W'Sol NW 474	74	1,013	max. 1,500	60 in water	Amine and co-solvent-free alkyd emulsion for wood impregnations and wood protecting paints, also suitable as a co-binder to improve open time and filling properties of decorative paints
W'Sol NW 521	26	1,040	max. 1,000	40 in water/propylenglycol/Dowanol PnB	Applications: Short-oil alkyd emulsion for the production of air-drying, cobalt free decorative paints
W'Sol VGT 8709	40	1.024	Rheometer, 20 °C, C 60/2°, 30 s-1 < 2,000 mPa·s	50 in water	97 % renewable raw material content for environmentally friendly decorative and architectural paints with good hardness development

## B WorléeSol

Alkyd resins, water-thinnable, air-drying and low bake



Type	Oil [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Density DIN 51757 [g/cm <sup>3</sup> ]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Sol 07 A	37	max. 10	35–45 (50 % in BG)	1.03	80–140 (50 % in BG)	75 in BG/sec. butanol 1:1	Air-drying and low bake industrial primers and topcoats, low viscous, very fast dust free drying, early water resistance
W'Sol 30		max. 15	max. 20 (pH 4–5) (50 % in water)	1.02	50–100 (85 % in BG)	100	Water-soluble modified linseed oil type, readily reducible with water, for printing inks, as additive for latex paints, tinting and artist colours and pigment pastes
W'Sol 31 A	90	max. 10 (del. form)	85–105	0.99	120–200 (Lff.) Dowanol	45 in water/BG 80:20	Water-dispersible linseed oil polymer, readily reducible with water for in- and outdoor stains and wood preservatives, extremely good penetration and outdoor resistance
W'Sol 31 C				1.0		45 in water/PnB 8:2	
W'Sol 37	90	max. 15	55–80	0.998	230	59 in water/BG	Modified linseed oil polymer for wood protection systems, excellent penetration and weather resistance on different woods and long term elasticity
W'Sol 61 A	30	max. 10 (50 % in BG)	35–45	1.06	70–90 (50 % in BG)	75 in BG/sec. butanol 1:1	Air-drying and low bake industrial primers and top coats, very fast drying, excellent corrosion resistance
W'Sol 61 E		max. 10 (50 % in BG)	35–45	1.07	50–70 (50 % in BG)	75 in ethoxy propanol	
W'Sol 61 F		max. 10 (50 % in PnB)	40–50	1.05	70–90 (50 % in PnB)	70 in Dowanol PnB	
W'Sol 61 P		max. 10 (del. form)	35–45	1.06	6,000–20,000 m·Pas (Lff. Brookfield)	60 in water/BG/sec. butanol	61 version fully neutralized with ammonia
W'Sol 64 E	30	max. 10 (50 % in BG)	35–45	1.06	50–70 (50 % in BG)	75 in ethoxy propanol	For air-drying and low bake industrial primers and top coats, very fast drying, good corrosion resistance
W'Sol 65 A	30	max. 10 (45 % in BG)	30–40	1.05	50–70 (45 % in BG)	70 in solvent mix: BG/sec. butanol/Dowanol PnB	Air-drying and low bake industrial primers and topcoats, very fast drying, early water resistance, suitable for agricultural machinery paints
W'Sol 65 E		max. 10 (45 % in BG)	30–40	1.05	30–60 (45 % in BG)	70 in ethoxy propanol	

## B WorléeSol

Alkyd resins, water-thinnable, air-drying and low bake

Type	Oil [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Density DIN 51757 [g/cm³]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Sol 68 A	32	max. 10 (50 % in BG)	35–45	1.07	50–100 (50 % in BG)	75 in BG	Silicone-modified alkyd resin for air-drying and stoving systems with excellent weather, heat and humidity resistance
W'Sol 84 C	30	max. 10 (del. form)	6.7–8.5	1.06	4,000–20,000	44 in water/BG (1,0 %) (DMEA neutr.)	For waterborne stoving systems, high gloss, good mechanical properties, total cosolvent content < 1 %
W'Sol 85 A	30	max. 10 (del. form)	6.7–8.5	1.06	6,000–20,000	43 in water/BG (5,5 %) (DMEA neutr.)	As WorléeSol 84, but more reactive

\*Viscosity max. 1.00

## B WorléePol

Polyester, water-thinnable, oil-free, saturated



Type	Acid value DIN EN ISO 3682 [mgKOH/g]	Color DIN ISO 4630, Gardner	OH content on solids [%]	Density DIN 51757 [g/cm³]	Viscosity 20 °C, del. form	Form of delivery [%]	Main uses and principal characteristics
W'Pol 191	45–60	max. 10 (50 % in BG)	approx. 4.3	1.10	45–70 (50 % in BG, DIN 53211-4/ 20 °C	80 in BG	Branched saturated polyester resin for waterborne industrial stoving systems
W'Pol 808	max. 25	max. 3 (del. form)	approx. 7.0	1.20	15,000– 25,000** (25 °C)	100	Low viscous, with high reactivity, for amine free water-based stoving paints on metal, aluminium foil, paper and plastics, also suitable for printing inks
W'Pol V 450	max. 15	max. 3 (del. form)	approx. 8.5	1.18	500–700** (25 °C)	90 in water	Similar to WorléePol 808 but higher reactivity, better stability, higher water tolerance and lower viscosity, also suitable for printing inks

\*Brookfield, ISO 2555

\*\*DIN 53015 [mPa·s]

## B WorléePol

Polyester/ether-polyols, solvent-free, saturated



Type	Viscosity 23 °C, del. form. DIN 53015 [mPa·s]	OH value DIN EN ISO 4629 [mgKOH/g]	Acid value EN ISO 3682 [mgKOH/g]	Water content DIN 51777, Teil 1, Karl Fischer [%]	Main uses and principal characteristics
W'Pol 165	3,000–4,000	150–170	max. 2	max. 0.2	WorléePol 165 is a low viscous and solvent-free branched polyol with ester and ether groups and is mainly used for the formulation of solvent-free coatings, sealings and adhesives in combination with modified polyisocyanates
W'Pol 230	2,500–3,500	220–240	max. 2	max. 0.2	WorléePol 230 is a low viscous and solvent-free branched polyol with ester and ether groups and is mainly used for the formulation of solvent-free coatings, sealings and adhesives in combination with modified polyisocyanates

## B WorléePol

Polyester/ether-polyols, solvent-free, saturated



Type	Viscosity 23 °C, del. form. DIN 53015 [mPa·s]	OH value DIN EN ISO 4629 [mgKOH/g]	Acid value EN ISO 3682 [mgKOH/g]	Water content DIN 51777, Teil 1, Karl Fischer [%]	Main uses and principal characteristics
W'Pol 1181/03	1,700–2,700 (25 °C)	310–350	max. 2	max. 0.1	Saturated low viscous polyester resin, due to its wide compatibility suitable for various systems, e.g. as modifying component for solvent and water-based isocyanate and amino resin crosslinking coatings to improve flexibility, flow, chemical and mechanical resistance and to increase solids content, corresponds to FDA § 175.300
W'Pol 1181/09	1,500–3,000 (25 °C)	310–350	max. 2	max. 0.1	Saturated low viscous polyester resin, due to its wide compatibility suitable for various systems, e.g. as modifying component for solvent and water-based isocyanate and amino resin crosslinking coatings to improve flexibility, flow, chemical and mechanical resistance and to increase solids content, excellent weather resistance

## B WorléeRes E

Polyesterpolyols, solvent-based and solvent-free, saturated



Type	Form of delivery [%]	Viscosity [mPa·s/23 °C]	Acid Value [mg KOH/g]	OH Value [mg KOH/g]	Main uses and principal characteristics
W'Res E 1800	solvent-free	25,000–36,000	≤ 3	200–240	Solvent-free, branched, saturated, hydroxyl-group-containing polyester resin, for flexible two-component polyurethane coatings for wood substrates, parquet and plastics; as sole binder with aromatic isocyanates it is used for anti-corrosive primers with excellent adhesion
W'Res E 1805	65 in MPA	17,000–23,000	≤ 3	262–285	Hydroxyl-group-containing, branched, saturated polyester resin, for UV-resistant two-component polyurethane coatings with excellent weather resistance, gloss retention, chemical and abrasion resistance
W'Res E 1832	65 in S2/BG	1,800–3,000	≤ 5	20–40	Hydroxyl-group-containing, saturated polyester resin especially for baking coatings, can and coil coatings, top-coats and general industrial coatings with excellent weather and UV resistance
W'Res E 1845	65 in S1/IB	1,000–1,600	≤ 5	85–105	Hydroxyl-group-containing, saturated, branched polyester resin, is primarily intended for baking coatings, can and coil coatings for food packaging, primer and automotive primer, complies with the requirements of FDA 21 CFR § 175.300
W'Res E 1852	55 in S2/BG	3,000–5,500	≤ 3	15–30	Hydroxyl-group-containing, saturated, linear polyester resin for highly reactive baking coatings, sterilizable stamping enamels for can coatings and coil coatings and general industrial coatings
W'Res E 1865	65 in S1/IB	2,200–3,000	≤ 6	75–90	Saturated, hydroxyl-group-containing, polyester resin for baking coatings, recommended for can and coil coatings, primer, general industrial and automotive coatings; comprising very good gloss retention, high elasticity, weather resistance and hardness as well as chemical resistance to household chemicals, complies with the requirements of FDA 21 CFR § 175.300
W'Res E 1870	80 in BA	2,600–3,500	≤ 3	132–156	Low branched, hydroxyl-group-containing, saturated polyester resin for air- and forced drying, elastic high solid, two component polyurethane coatings, recommended for industrial coatings, automotive repair and plastic coatings with good weather resistance and excellent low temperature flexibility

S1: Solvesso 100, S2: Solvesso 150 ND, S4: Solvesso 200, BA: Butyl acetate, IB: Isobutanol, MPA: Methoxy propyl acetate, BG: Butyl glykol,

## B WorléeDur

Epoxy esters, solvent-based drying



Type	Oil [%] in approx.	Oil type	EP-resin [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Dur D 46	40	Conj. fatty acids	60	max. 10 (50 % in xylene)	max. 4	200–250 (50 % in xylene)	60 in xylene	High quality zinc rich and anti corrosive paints, air-drying and stoving primers and top coats, fast air-drying and excellent water resistance

## B WorléeDur

Epoxy esters, drying



Type	Oil [%]	Oil type	EP-resin [%]	Color DIN ISO 4630, Gardner	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Form of delivery [%]	Main uses and principal characteristics
W'Dur MF 45	40	Tall oil/ tung oil	60	max. 20 (50 % in xylene)	max. 6	200–250 (50 % in xylene)	60 in xylene	Zinc rich and anti corrosive paints with excellent water resistant and rust preventing, good brushability
W'Dur D 6311	63	Special modified		max. 10 (del. form)	max. 2	3.000–4.000 mPa·s (del. form, 20 °C, DIN 53015)  3.500–5.000 Viscosity, Rheometer, 20 °C, C 35/1 °, 100 s-1	60 in dearomat. HC 140–165  60 in white spirits 145–195  60 in dearomat. HC 160–200	Universal adhesion and anti corrosion primer and one coat paints, very good adhesion even on difficult substrates

## B WorléeFen

Rosin-based hard resins, phenol-modified



Type	Melting point Capillary method [°C]	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Color DIN ISO 4630, Gardner	M.O.T. [%]	Main uses and principal characteristics
W'Fen F 105	90–110	15–25	20–30 (50 % in ws 145–195)	max. 10 (50 % in ws 145–195)	300	General purpose type for alkyd-based paints and primers, low viscous resin giving excellent gloss and rub resistance on cold set inks
W'Fen F 130	120–140	15–25	120–170 (60 % in xylene)	max. 10 (60 % in xylene)		Cold cut modifying resin for paints with good drying properties and high gloss

## B WorléeSin

Rosin-based maleic resins and rosin esters



Type	Melting point Capillary method [°C]	Acid value DIN EN ISO 3682 [mgKOH/g]	Flow time 20 °C DIN 53211-4 [s]	Color DIN ISO 4630, Gardner	Main uses and principal characteristics
W'Sin GM 201	95–120	20–25	25–50 (50 % in ws 145–195)	max. 8 (50 % in ws 145–195)	General purpose resin for modification of oil, alkyds and paints based up on them, as a cold cut or to be polymerised with oils and alkyds
W'Sin GM 203	100–125	20–25	25–50 (50 % in ws 145–195)	max. 8 (50 % in ws 145–195)	General purpose resin for modification of oil, alkyds and paints based up on them, as a cold cut or to be polymerised with oils and alkyds
W'Sin PM 200	95–115	15–25	20–40 (50 % in ws 145–195)	max. 8 (50 % in ws 145–195)	Low viscosity penta esterified resin for gloss improvement for house and industrial paints and dispersing media for pigment pastes and preparations
W'Sin PM 202	100–125	15–20	30–60 (50 % in ws 145–195)	max. 8 (50 % in ws 145–195)	Penta esterified general purpose resin for decorative, do-it-yourself and industrial paints, also used for furniture adhesives
W'Sin MK 223	90–110	40–50	80–120 (60 % in BuAc)	max. 8 (60 % in BuAc)	With castor oil plasticized, for NC-lacquers with very good solvent release and sandability
W'Sin MS 265	155–190	190–220	15–25 (50 % in ethanol)	max. 8	For alcohol and water-based paints and lacquers, flexo and gravure inks, over- print varnishes, compatible with acrylic polymers and NC, soluble in water after neutralization, FDA 175.105, 175.300



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