

## AQUACER 1541

### Carnauba wax emulsion to improve the surface properties of aqueous can coatings

Wax additives are commonly used in can coating systems to improve the surface properties of the coating, for example by reducing COF values and improving scratch and abrasion resistance. These wax additives can either be a dispersion in an organic solvent, an emulsion with water as carrier, or micronized. Wax dispersions affect the VOC content of the formulation due to the organic solvent they contain, which is undesirable in many aqueous coating systems. Furthermore, the use of biocides is not allowed in food contact applications.

AQUACER 1541 is a new wax emulsion based on carnauba wax that effectively lowers the COF value and significantly improves the scratch resistance of water-based can coatings. The additive is particularly suitable for aqueous systems with a low organic co-solvent content and does not have a negative impact on gloss and transparency. It complies with food contact regulations\*, is biocide-free, and is made from bio-based raw materials.

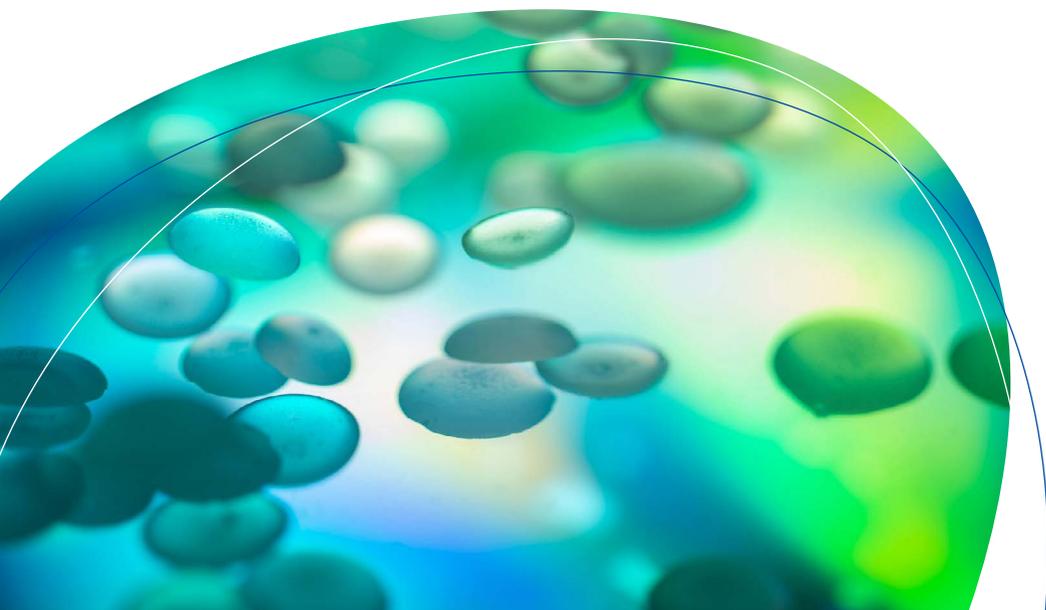
### Benefits

- Reduced COF values
- Improved scratch resistance
- No negative impact on gloss or transparency
- Suitable for aqueous systems with a low co-solvent content
- Food contact compliant\*
- Biocide-free
- From bio-based materials

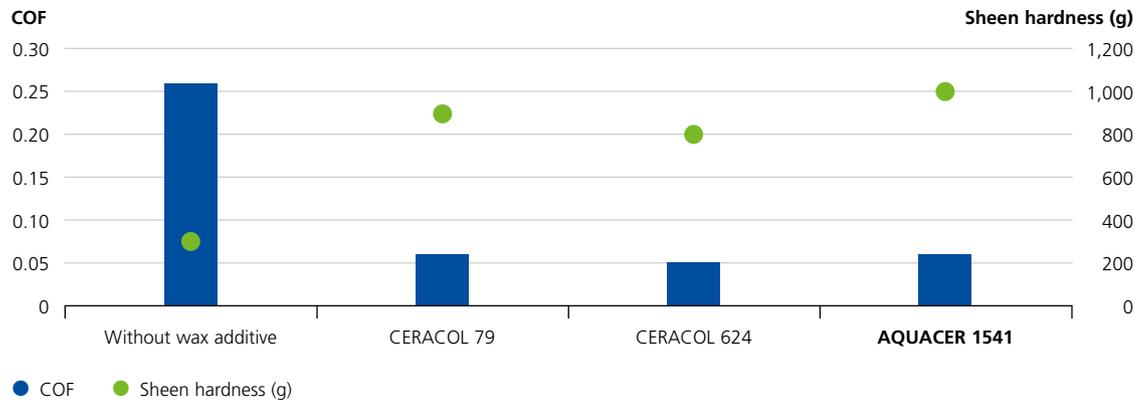
### Technical properties

- Non-ionic emulsion based on carnauba wax
- pH value: 10
- Non-volatile matter (60 min, 125 °C): 25 %
- Carrier: water
- Melting point (wax content): 85 °C
- Viscosity (23 °C, D=800/s): < 50 mPa·s
- Bio-based carbon content (ASTM D6866): 94 %
- Recommended dosage: 0.05–3 % additive (as supplied) based on the total formulation

\* Status December 2024. For information regarding the regulatory status according to food contact regulation please visit [www.byk.com/en/service/regulatory-affairs/food-contact](http://www.byk.com/en/service/regulatory-affairs/food-contact) or contact our BRIEF Team.



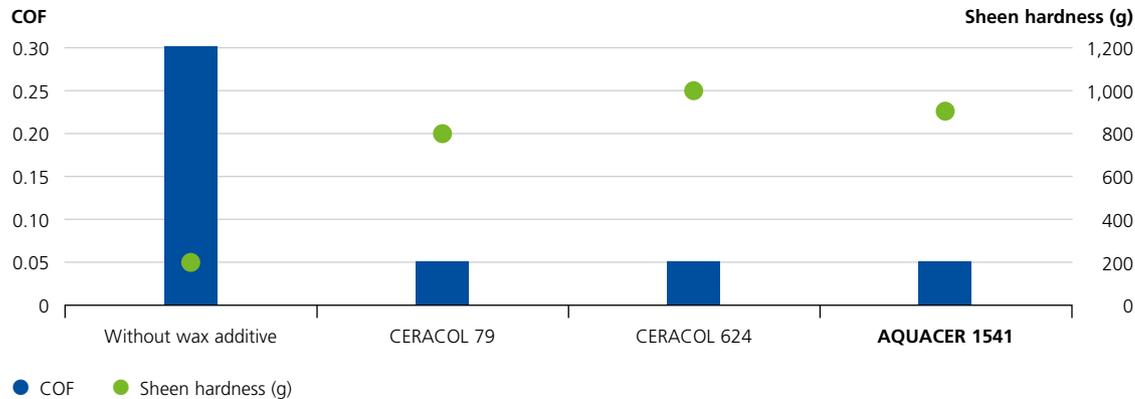
## AQUACER 1541 – improved surface slip and scratch resistance in an aqueous OPV with low organic co-solvent content



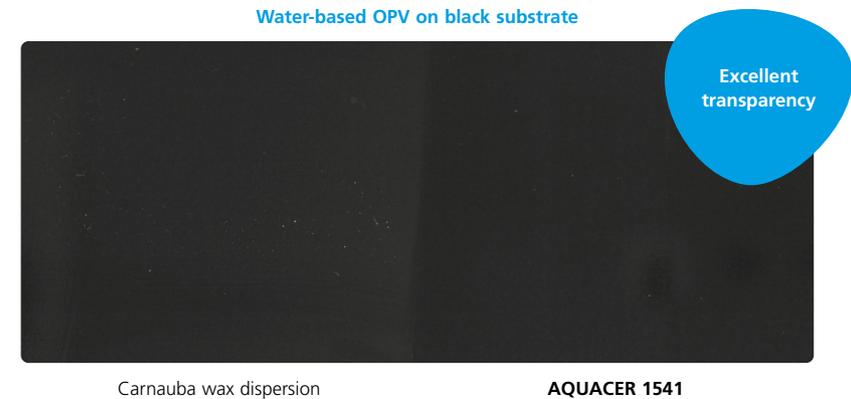
● COF ● Sheen hardness (g)  
**Test system:** Aqueous polyester-based overprint varnish, **Co-solvent content:** 3 % in the total formulation  
**Wax dosage:** 0.7 % solid wax based on the total formulation

**AQUACER 1541** significantly reduces the COF and increases the sheen hardness in water-based systems without introducing additional co-solvents into the formulation and without negatively affecting gloss or transparency.

## AQUACER 1541 – improved surface slip and scratch resistance in an aqueous OPV with higher organic co-solvent content



● COF ● Sheen hardness (g)  
**Test system:** Aqueous polyester-based overprint varnish, **Co-solvent content:** 7 % in the total formulation  
**Wax dosage:** 0.7 % solid wax based on the total formulation



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