





## Waterborne Container coatings system

From July 1, 2021, according to the self-discipline consensus of the China Container Industry Association (CCIA) on the further improvement of the container reefer environmental coating protection. The only exception is that the pretreatment shopprimer can still be solvent zinc-rich epoxy primer but Hempel does also have a waterborne alternative, the remaining main processes shall gradually stop using low solids solventborne coatings with the phased implementation of refrigerated container coatings either consisting of water borne zinc-rich coatings, water borne intermediate coatings, and water borne topcoats, or low-VOC environmental protection coatings that are non-aqueous coatings or solutions with low VOC emissions shall be allowed.

With more than 40 years experiences in container coatings, Hempel has committed to the replacement of water borne coatings for new standard dry cargo containers, while having developed modified water borne coating solutions for refrigerated containers and special containers prospectively. Currently, our new container coating assortment include both water borne coating system covering standard dry cargo containers, refrigerated containers, and some special containers, as well as solvent-free and high-solid fast drying technology.

## All Hempel's waterborne container products offers

- Compliance with following industry standards: GB 30981-2020, GB/T 38597-2020, JH/T E06-2015, DB 32/T 3500-2019, and other criteria related to VOC
- · Good impact resistance, bending resistance, and excellent adhesion performance
- · Good and long lasting corrosion resistance performance
- · Extremely low VOC content reduces the exposure to the health of workers and the environment during production and application
- Hempel provides owners and manufacturers with integrated coating solutions for green containers
- Especially suitable for modernized container assembly lines and high-speed mass production

## Waterborne container coatings

Products	Scope of application	Advantage
Waterborne shop primer	Providing short-term protection as the first temporary coating	<ul> <li>Easy application</li> <li>minimizing the wear of production equipment</li> <li>Fast drying, suitable for the production on the shopprimer line</li> <li>Availability of water borne shop primers without zinc powder for low corrosion environment as well as zinc rich versions for higher corrosion resistance</li> </ul>
Waterborne zinc-rich primer	As the most important anti-corrosion coating, ensure long-term protection	Outstanding corrosion resistance     Excellent application performance
Waterborne epoxy primer/intermediate coat	Applied as primer or intermediate coat	<ul> <li>Single primer applied to various substrates, with excellent substrate compatibility</li> <li>Form to flexible coating film with good adhesion and good impact resistance after curing</li> <li>Excellent corrosion resistance</li> </ul>
Waterborne epoxy interior topcoat	Two-component epoxy coating applied as the interior topcoat of dry cargo boxes	<ul> <li>Superior impact resistant after curing</li> <li>Good chemical splash resistance</li> <li>Conforms to FDA 175.300 in respect of carriage of dry food stuff</li> </ul>
Waterborne acrylic topcoat	One-component acrylic coating, applied as external topcoat for the dry cargo container, refrigerated container and special container	<ul> <li>Two types of products with different gloss are available</li> <li>Super-fast drying, excellent flexibility</li> <li>Excellent light and colour retention, stain resistance and weather resistance</li> <li>Good chemical splash resistance</li> </ul>
Waterborne polyurethane topcoat	Waterborne two-component polyurethane coating, applied as external topcoat for the dry cargo container, refrigerated container and special containers	<ul> <li>High gloss and excellent light retention and color retention</li> <li>Good hardness and scratch resistance</li> <li>It can adapt to the rapid production of the production line</li> </ul>

## Hempel North Asia Holding Co., Ltd.