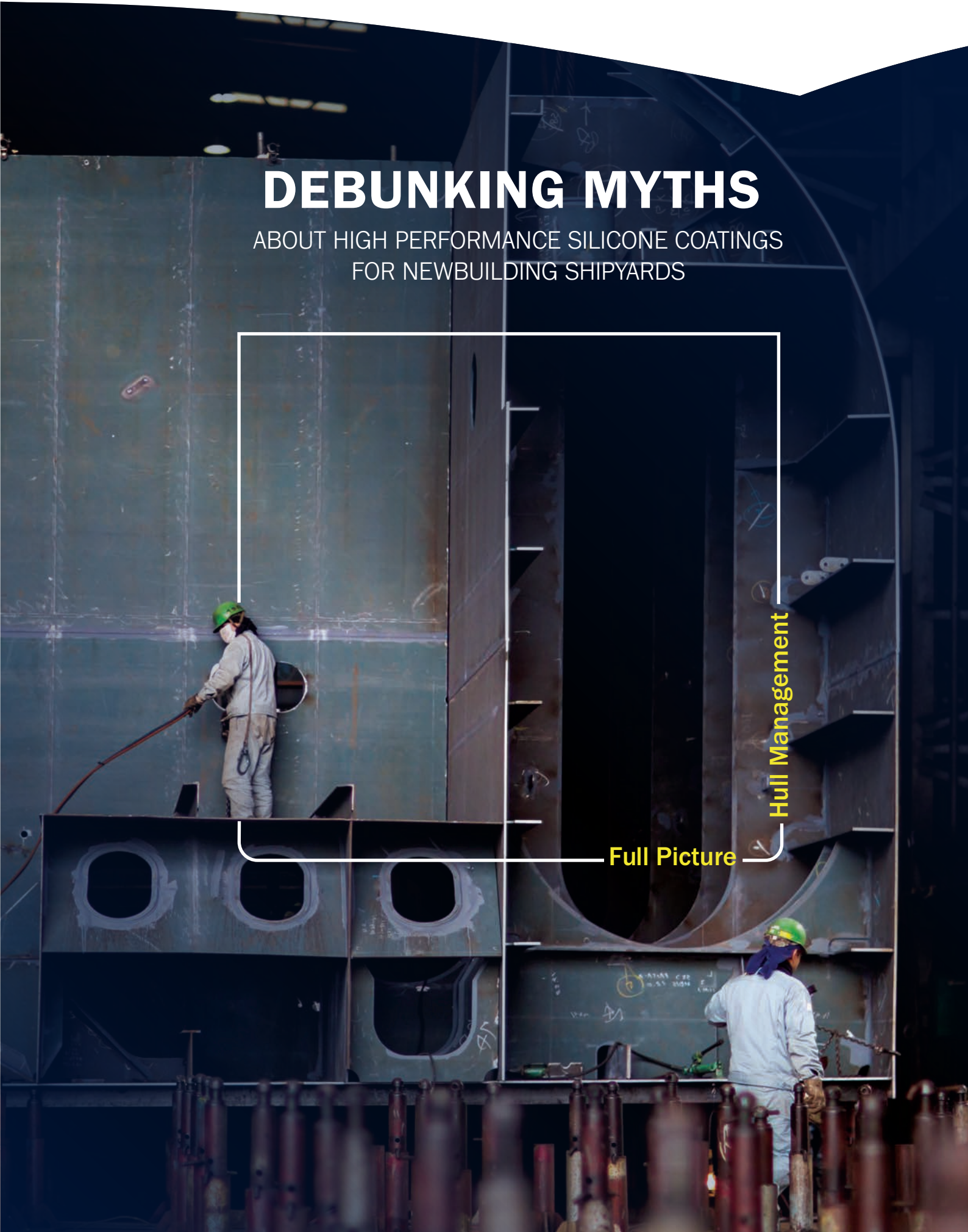


DEBUNKING MYTHS




ABOUT HIGH PERFORMANCE SILICONE COATINGS
FOR NEWBUILDING SHIPYARDS

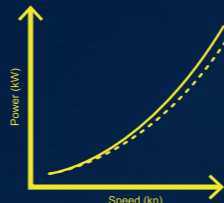


Hull Management

Full Picture



DEBUNKING MYTHS ABOUT HIGH PERFORMANCE SILICONE COATINGS FOR NEWBUILDING SHIPYARDS

	<p>Myth #1</p> <p>Silicone coatings cannot be safely applied during the hull erection stage and will delay delivery timelines.</p> <p>FALSE</p>	<p>Hempaguard NB is specifically developed for application during the hull erection stage, eliminating the need for pre- or post-delivery docking. Hempel's NB system is engineered to fit within standard newbuild schedules, allowing silicone coatings to be applied without affecting launch timelines - ensuring high-performance vessels are delivered on time and without added cost.</p>
<p>Down to</p> <p>0°C</p> 	<p>Myth #2</p> <p>It is not possible to apply silicone coatings during winter.</p> <p>FALSE</p>	<p>While the application of silicone coatings like Hempaguard NB is naturally affected by winter temperatures, it is important to note that it remains applicable even in very cold conditions, down to 0°C. Hempel will always recommend the optimal combination of specifications to suit the application conditions and temperatures.</p>
	<p>Myth #3</p> <p>Application of silicone coatings at the shipyard is not possible due to high contamination.</p> <p>FALSE</p>	<p>Hempel is currently proposing the use of an improved application method, which significantly reduces both spray dust and paint volume. In combination with 'smart masking' and an optimised painting process, Hempaguard NB can be easily applied in newbuild shipyards with minimal impact on the schedule. These systems also support compliance with air quality regulations and help reduce Scope 1 and Scope 3.1 emissions.</p>
	<p>Myth #4</p> <p>Silicone coatings cannot withstand long outfitting periods or outfitting in river water.</p> <p>TRUE & FALSE</p>	<p>Hempaguard NB withstands prolonged exposure to atmospheric conditions, allowing for extended outfitting periods of up to six months. It has also been designed to endure outfitting periods in river waters without any risk of blistering or fouling, outperforming SPCs.</p>
	<p>Myth #5</p> <p>Silicone coatings cannot be applied on top of an SPC without full blasting.</p> <p>FALSE</p>	<p>Hempel has developed a highly compatible system that allows overcoating an SPC, Sonic (silyl acrylate), with Hempaguard NB without the need for full blasting. This system gives shipyards greater flexibility to plan the optimal antifouling coating combination based on application conditions and outfitting periods. For longer outfitting periods, Sonic is recommended, followed by the application of Hempaguard NB.</p>

 <p>92% less amount of biocides</p>	<p>Myth #6</p> <p>Silicone coatings do not provide sustainability benefits over SPCs for shipyards.</p> <p>FALSE</p>	<p>Silicone coatings help shipyards align with national sustainability goals and local regulations by reducing the environmental impact of the coating process and supporting the delivery of environmentally responsible vessels. They lower volatile organic compound (VOC) emissions and minimise waste during application. Vessels coated with silicone coatings use up to 92% less biocide and contribute to a reduction in the shipyard's Scope 3 emissions by enabling lower fuel consumption throughout the vessel's operational life, thereby strengthening the shipyard's overall ESG profile.</p>
<p>Power Curves (at sea trials)</p> 	<p>Myth #7</p> <p>Silicone coatings are not considered an Energy Saving Device (ESD), have no impact on EEDI, and serve only as a biofouling management tool.</p> <p>FALSE</p>	<p>Hempaguard delivers an average 6% power saving from day one - known as Out-of-Dock Power Saving - comparable to traditional Energy Saving Devices (ESDs) such as the Mewis Duct, positioning silicone coatings as a true ESD that improves a vessel's speed-power curve. Recognised as a Category A Energy Efficiency Technology, it contributes to improved EEDI values when applied at newbuild. Beyond biofouling control, Hempaguard enhances vessel design and in-service efficiency, making silicone coatings both an operational and technical energy-saving solution</p>
 <p>Equally strong as SPCs when guidelines are followed</p>	<p>Myth #8</p> <p>Silicone-based coatings are more prone to mechanical damage compared to SPCs.</p> <p>TRUE & FALSE</p>	<p>Silicones are highly resistant to impacts due to their elastic behavior and impact-damping properties. Although they are less resistant to sharp wear and tear, Hempel has developed guidelines to mitigate the risk of such exposure during the vessel's launch and outfitting. Hempel coating advisers work closely with the shipyard operations team to ensure these precautions are followed, minimising potential damage until the vessel is delivered.</p>
 <p>Hempel specific cleaning guidelines</p>	<p>Myth #9</p> <p>Silicone-based coatings cannot be cleaned.</p> <p>FALSE</p>	<p>While the Hempaguard system is designed to require no in-water hull cleaning (IWC), situations may arise - like with any antifouling system - where IWC becomes necessary at the shipyard, particularly if outfitting periods exceed initial specifications. Hempel has developed guidelines to ensure that IWC interventions have minimal impact on the performance of the coating system.</p>

As a world-leading supplier of trusted coating solutions, Hempel is a global company with strong values, working with customers in the decorative, marine, infrastructure and energy industries. Hempel factories, R&D centres and stock points are established in every region.

Across the globe, Hempel's paints and coatings can be found in almost every country of the world. They protect and beautify buildings, infrastructure and other assets, and play an essential role in our customers' businesses. They help minimise maintenance costs, improve aesthetics and increase energy efficiency.

At Hempel, our purpose is to shape a brighter future with sustainable coating solutions. We firmly believe that we will succeed as a business only if we place sustainability at our heart. Not only is it the right thing to do, it will strengthen our competitive position, make ourselves more resilient and reduce our risk.

Hempel was founded in Copenhagen, Denmark in 1915. It is majority owned by the Hempel Foundation, which ensures a solid economic base for the Hempel Group and supports cultural, social, humanitarian and scientific purposes around the world.

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