# WICKED AF





\*anti-fouling



# ED AF®





<sup>1</sup> Detty, M. R., Ciriminna, R., Bright, F. V., & Pagliaro, M. (2015). Xerogel Coatings Produced by the Sol-Gel Process as Anti-Fouling, Fouling-Release Surfaces: From Lab Bench to Commercial Reality. *ChemNanoMat*, 1(3), 148–154. https://doi.org/10.1002/cnma.201500056

<sup>2</sup> Dibke, C., Fischer, M., & Scholz-Böttcher, B. M. (2021). Microplastic Mass Concentrations and Distribution in German Bight Waters by Pyrolysis-Gas Chromatography-Mass Spectrometry/Thermochemolysis Reveal Potential Impact of Marine Coatings: Do Ships Leave Skid Marks? Environmental Science & Technology, 55(4), 2285-2295. https://doi.org/10.1021/acs.est.0c04522

<sup>3</sup> Almeida, E., Diamantino, T. C., & de Sousa, O. (2007). Marine paints: The particular case of antifouling paints. *Progress in Organic Coatings*, *59*(1), 2-20. https://doi.org/10.1016/j.porgcoat.2007.01.017

<sup>4</sup> Gola, D., Kumar Tyagi, P., Arya, A., Chauhan, N., Agarwal, M., Singh, S. K., & Gola, S. (2021). The impact of microplastics on marine environment: A review. Environmental Nanotechnology, Monitoring & Management, 16, 100552. https://doi.org/10.1016/j.enmm.2021.100552

<sup>5</sup> Lebreton, L., Egger, M., & Slat, B. (2019). A global mass budget for positively buoyant macroplastic debris in the ocean. *Scientific Reports*, *9*(1), Article 1. https://doi.org/10.1038/s41598-019-49413-5

<sup>6</sup> Homepage–EN - Finsulate. (n.d.). Finsulate. Retrieved November 11, 2022, from https://www.finsulate.com/en/

<sup>7</sup> Coppercoat Antifoul - Environmentally Responsible Bottom Paint. (n.d.). Retrieved November 11, 2022, from https://coppercoat.com/

<sup>8</sup> Selektope in the antifouling keeps the ship hull free from barnacles. (n.d.). Selektope. Retrieved November 11, 2022, from https://selektope.com/

<sup>9</sup> Sonihull ultrasonic anti-fouling systems. (n.d.). *Sonihull*. Retrieved November 11, 2022, from https://sonihull.com/sonihull-systems/

# WICKE



### NON-SUSTAINABLE

#### **900 MILLION LITRES**

of anti-fouling paints are used yearly<sup>1</sup>

### **1194 TONNES**

of microplastics come from conventional anti-fouling paint annually<sup>2</sup>

### **3000 TONNES**

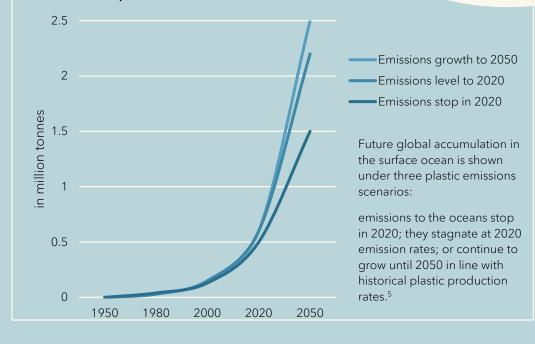
of **copper biocides** are released into the water every year<sup>3</sup>

Over time, conventional anti-fouling paints dissolve slowly into the water. While the paint dissolves, the biocides within are released, and the surrounding marine life is subsequently harmed.<sup>3</sup> The residue paint consists of microplastics that end up in the ocean.<sup>2</sup>

- 1 Fish consume **microplastics** and absorb **toxic elements** of the anti-
- 2 fouling paint<sup>4</sup>
- Humans eat fish, ingesting these elements as well<sup>4</sup>

This leads to **health risks** such as cancer, impaired immune systems & oxidative stress<sup>4</sup>

#### Microplastics in the surface ocean, 1950 to 2050



## SUSTAINABLE

Type c water	pe of boat	Vessels	Yachts	Motorboats	Speedboats	Pleasure Crafts
Sa	lt	selektope"	selektope"	<b>©</b>		selektope®
Bracl	kish			<b>©</b>	<b>©</b>	
Fre	sh			<b>®</b> —	<b>©</b>	

**FINSULATE** is a microfiber anti-fouling wrap that lasts up to 5 years. It can only be applied by certified companies but is easily maintained with a high-pressure water cleaner.<sup>6</sup>





**COPPERCOAT** is a tin-free copper-based coating that lasts up to 10 years. It can be easily applied and maintained by the boat owner.<sup>7</sup>

**SELEKTOPE** is a powerful anti-fouling agent that lasts up to 5 years. It uses receptor simulation to repel barnacles and can be easily applied and maintained.<sup>8</sup>





**SONIHULL** is an ultrasonic anti-fouling system that lasts a lifetime if properly maintained. It produces ultrasonic energy to prevent biofouling.<sup>9</sup>