



NAVAL RESEARCH LABORATORY

The Corporate Laboratory for the Navy and Marine Corps

Siloxane-Based Nonskid and Topside Coatings

The Naval Research Laboratory (NRL) has developed a novel siloxane-based nonskid and topside coatings for Navy surface ships. The siloxane nonskid is a two-component (2K) system with a 4:1 mix ratio (by volume) that is applied via roll or spray to generate a rough profile. The topside coating is a single-component (1K) system that does not require the mixing of components and is applied via spray, brush, or roll. Both coatings are being qualified to MIL-Spec. requirements.



A qualified Type V epoxy nonskid (left) compared to NRL's siloxane nonskid (right) after six months of exterior exposure on the *USS MASON* (DDG-87).



NRL's single-component (1K) semigloss siloxane topside coating on a bulkhead of the *USS CHOSIN* (CG-65).



Sprayed siloxane nonskid on the boat deck of the *USS LABOON* (DDG-58).

Advantages

- Enhanced performance.
- Longer service life.
- Reduced corrosion compared to currently qualified nonskid and topside coatings.
- Reduction in maintenance costs for Navy feet.

Application Areas

- Maritime ship and structures
- Marine structures (e.g. oil rigs)
- Process plants
- Pleasure watercraft
- Helicopter landing zones
- Public walkways, ramps, and stairwells
- Rail cars

Licensing and Collaboration Opportunities

US Patent No. 8,133,964; 9,006,307; 9,034,946; 9,139,753 and US Patent Publication No. US20150291837A1 are available for license to companies with commercial interest. Collaborative research and development is available under a Cooperative Research and Development Agreement (CRADA).

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