

OBJECTIVE

To choose and develop fiber optic cable surface coating(s) to provide abrasion resistance among other properties for as well as develop methods to test the properties of the coatings.

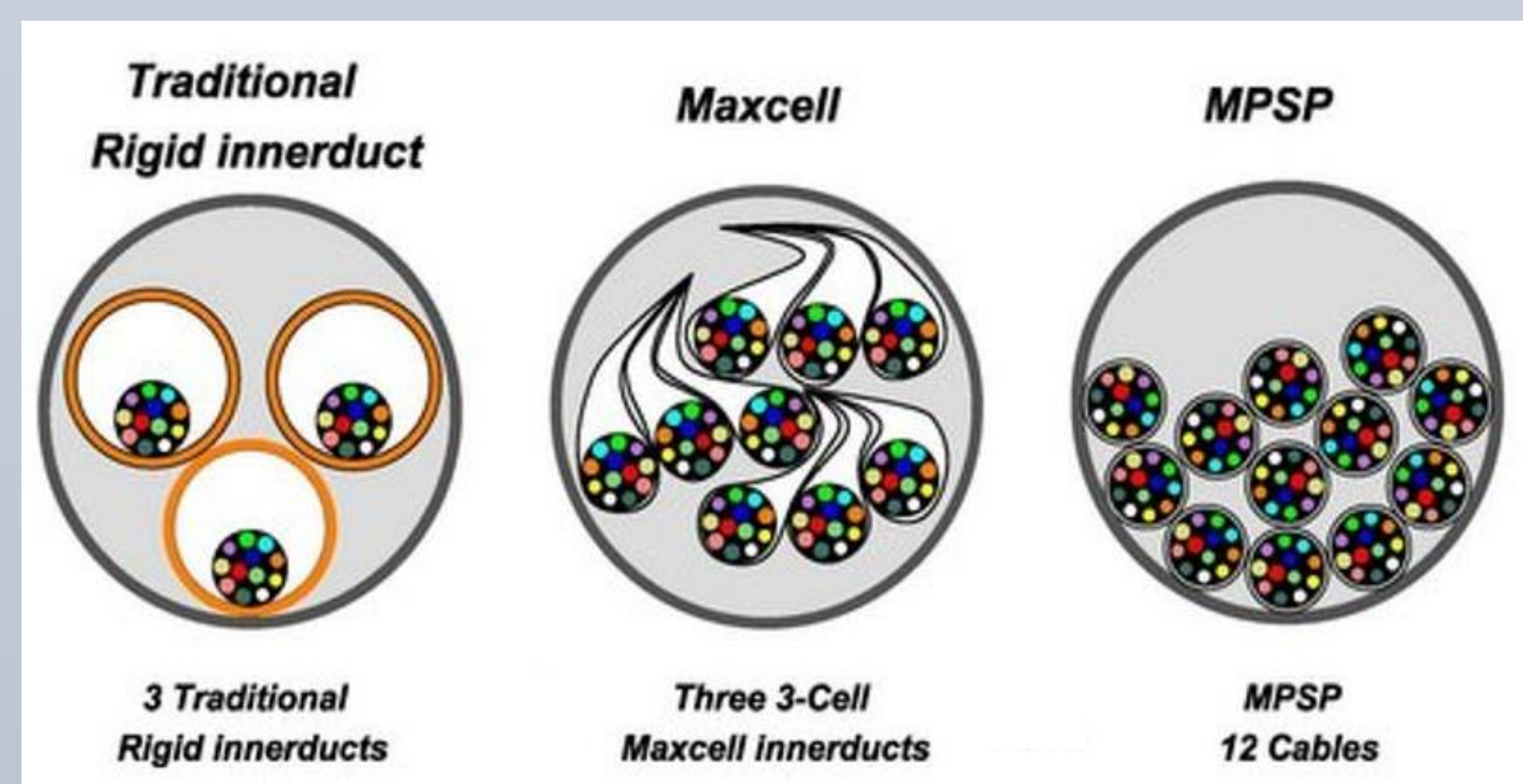
Goal: Choose or develop a coating that dries in seconds.

INTRODUCTION

During installation, fiber optic cables are pulled through conduits at a speed around of 200 feet per minute exposing them to friction and mechanical stress that leads to damage.

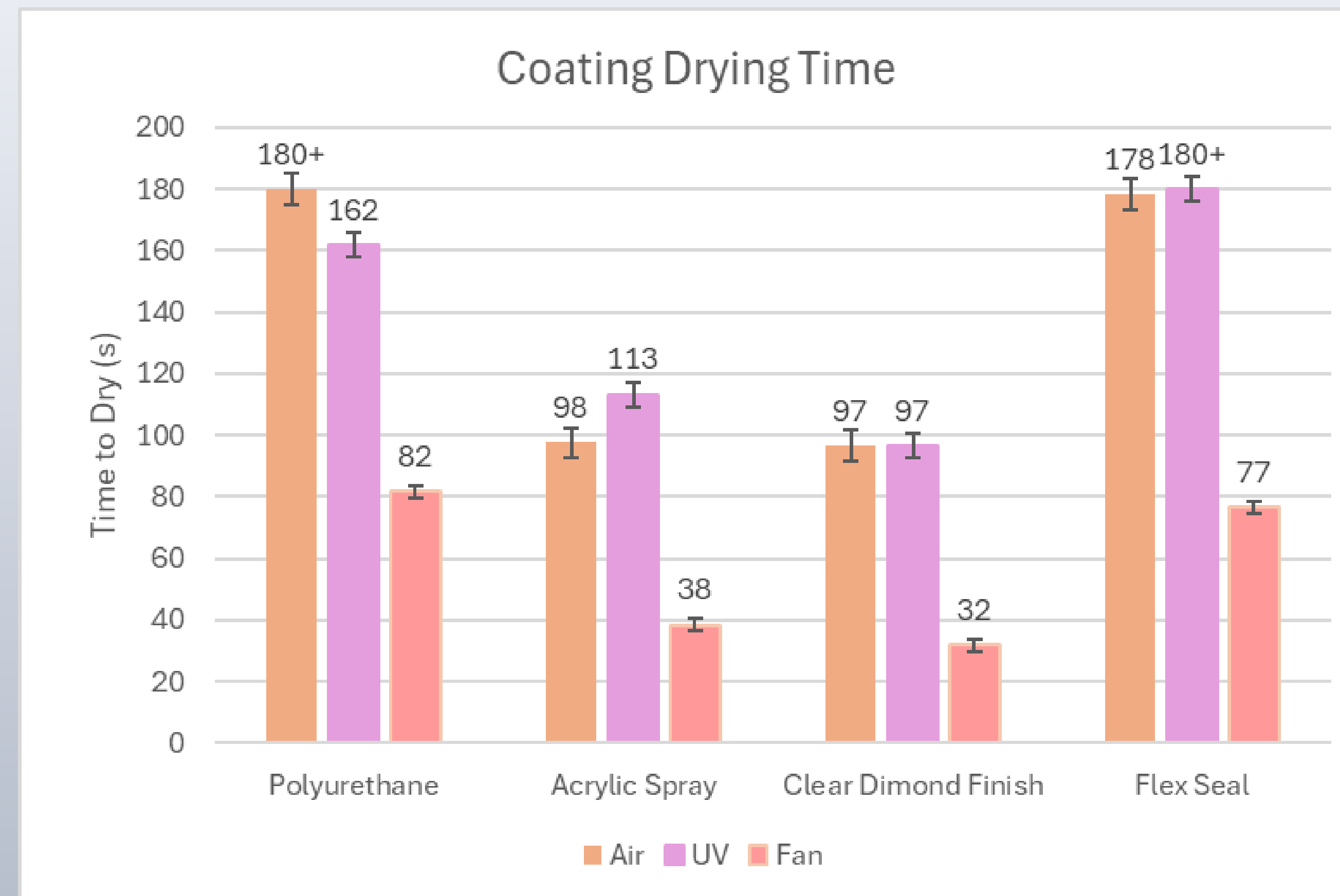


The current industry standards that prevent damage limit the number of cables able to be installed in conduits.

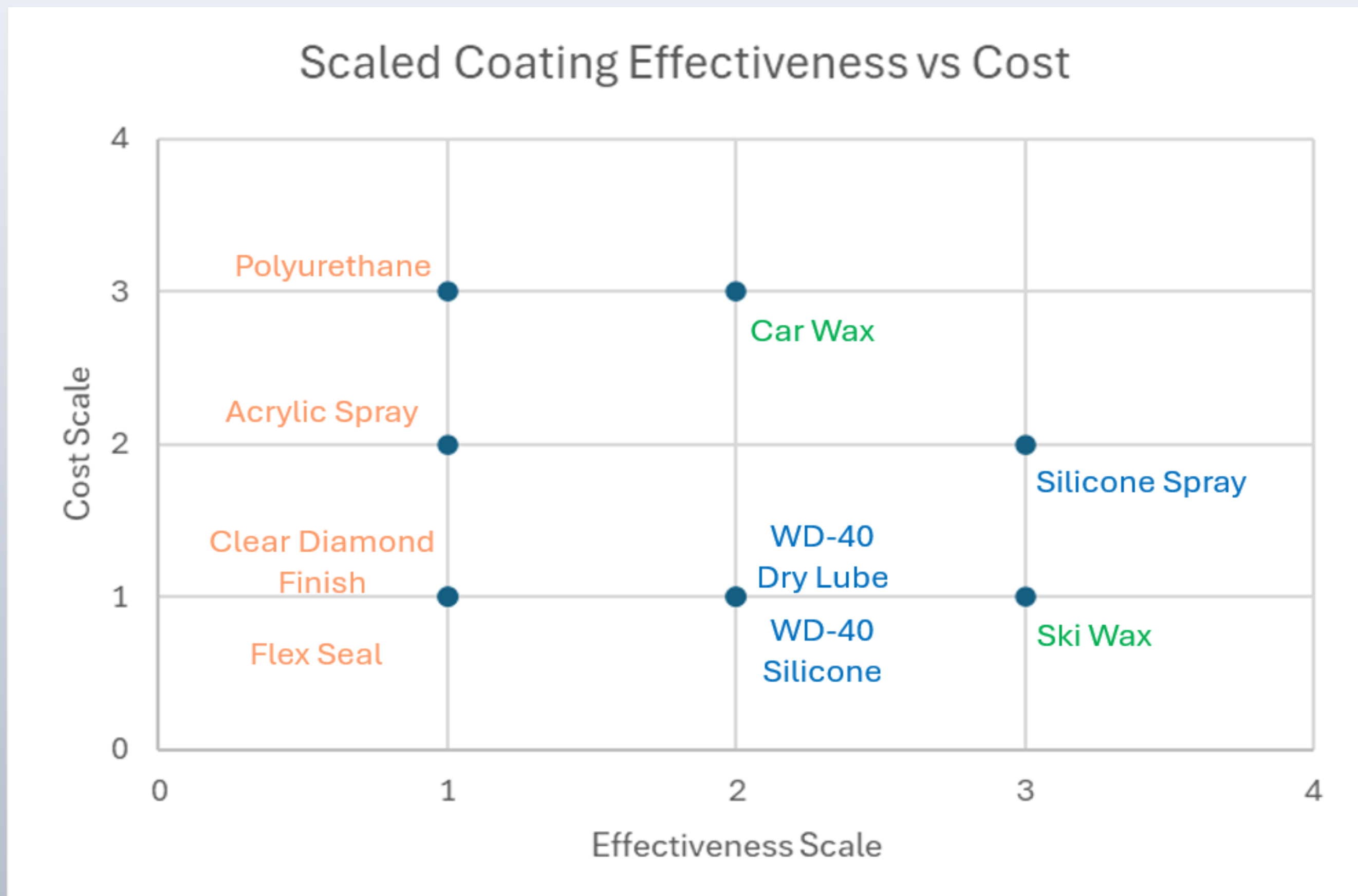


This project aims to reduce limitations by developing a chemical coating designed to enhance cable strength.
Provisional patent Docket No.: VIK.P0035.

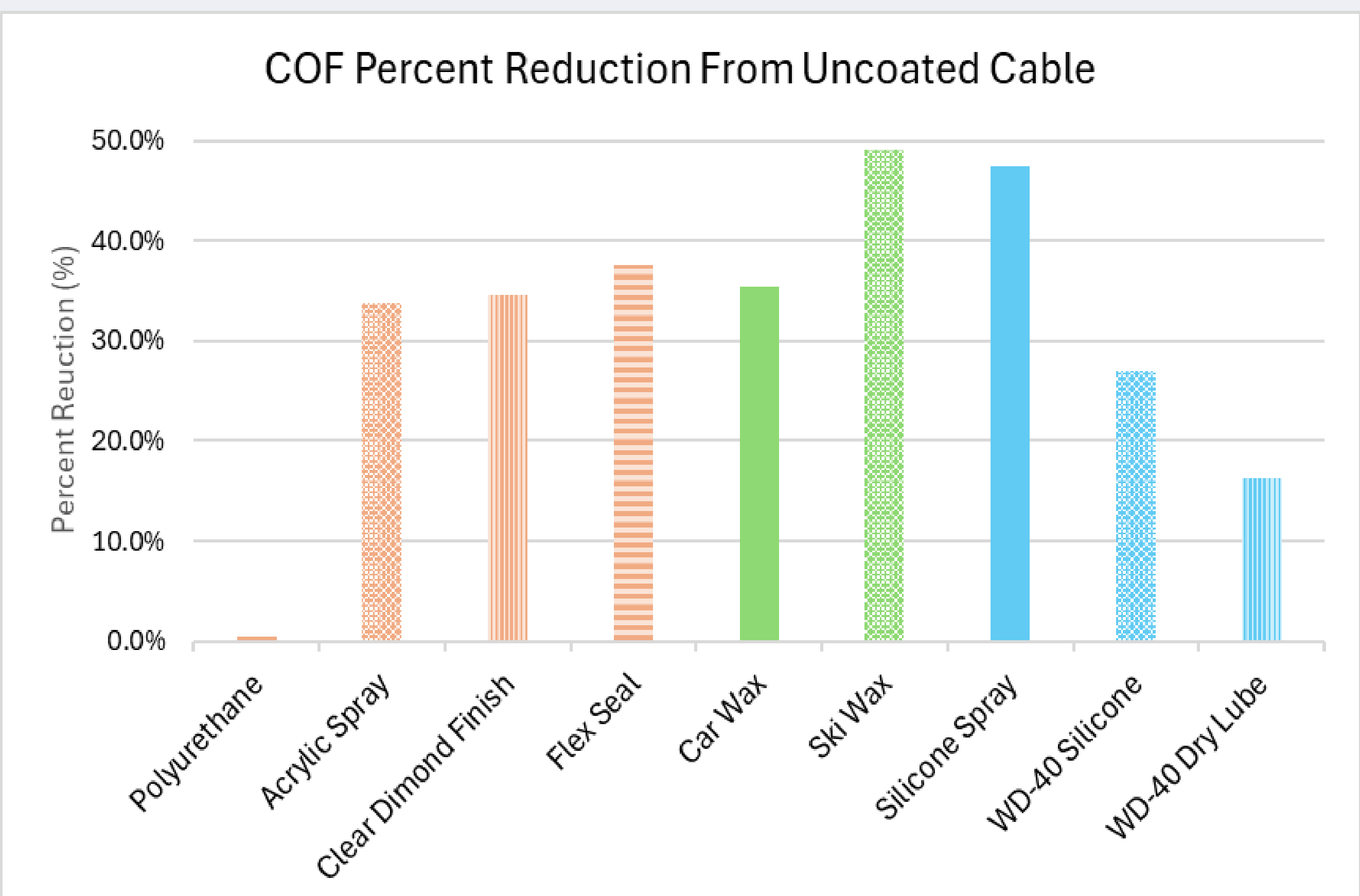
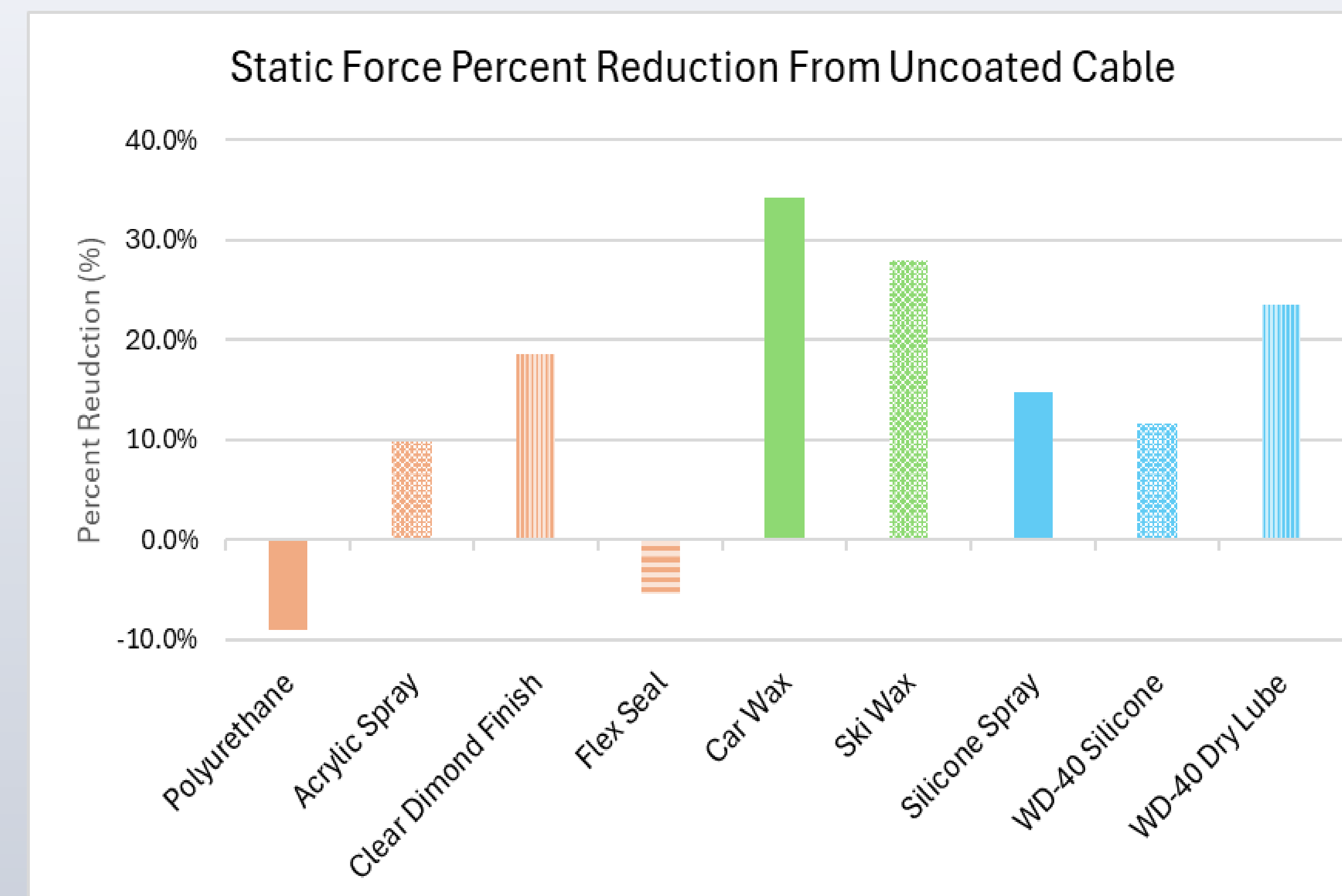
QUICK DRY TESTING



WEIGHT ADDED PER COATING



COEFFICIENT OF FRICTION TESTING



Based off COF reduction, the best coating we tested was Ski Wax and the Silicone Spray.

FUTURE CONSIDERATIONS

- 1.Design coatings in the lab based on test results
- 2.Test the effect on drying time by changing air conditions such as heat, humidity, and fan speed
- 3.Analysis of drying time per thickness of coatings.

ACKNOWLEDGEMENTS

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