

Superhydrophobic Coatings Using Double-Silane Treated Silica Particles

Disclosure Number

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Technology Summary

This invention relates to superhydrophobic coatings and more specifically to durability improvements. This disclosure describes how to simultaneously covalently bond superhydrophobic nanotextured silica to a polymeric binder while maintaining its superhydrophobic behavior. Another way of putting it is that this invention discloses how superhydrophobic nanotextured silica powders (e.g. superhydrophobic diatomaceous earth) can be covalently bonded to a polymeric binders (like polyurethane or epoxy). These binders can then be bonded to virtually any given substrate.

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