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(71) Applicant (for all designated States except US): **PPG INDUSTRIES OHIO, INC.** [US/US]; 3800 West 143rd Street, Cleveland, OH 44111 (US).

(72) Inventors: **MOORE, Kelly, L.**; 232 Hill Farm Road, Dunbar, PA 15431 (US). **PAWLIK, Michael J .**; 400 Vilsack Road, Glenshaw, PA 15116 (US). **SANDALA, Michael G .**; 84 Donna Drive, Pittsburgh, PA 15237 (US). **WILSON, Craig A .**; 4069 Tall Timber Drive, Allison Park, PA 15101 (US).

(74) Agents: **MEYERS, Diane, R.** et al.; PPG Industries, Inc., One PPG Place - 39th Floor, Pittsburgh, PA 15272 (US).

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(54) Title: ELECTRODEPOSITION OF DIELECTRIC COATINGS ON SEMICONDUCTIVE SUBSTRATES

(57) Abstract: A method includes: immersing a semiconductive substrate in an electrodeposition composition, wherein at least 20 percent by weight of resin solids in the composition is a highly cross-linked microgel component, and applying a voltage between the substrate and the composition to form a dielectric coating on the substrate. A composition for use in electrodeposition includes a resin blend, a coalescing solvent, a catalyst, water, and a highly cross-linked microgel, wherein at least 20 percent by weight of resin solids in the composition is the highly cross-linked microgel. Another composition for use in electrodeposition includes a surfactant blend, a low ion polyol, phenoxypopropanol, a catalyst, water, a flexibilizer, and a highly cross-linked microgel, wherein at least 20 percent by weight of resin solids in the composition is the highly cross-linked microgel.



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