(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
15 January 2009 (15.01.2009)

PCT

(10) International Publication Number
WO 2009/009641 A3

(51) International Patent Classification:
C09D 5/00 (2006.01)

(21) International Application Number:
PCT/US2008/069602

(22) International Filing Date: 10 July 2008 (10.07.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/776,102 11 July 2007 (11.07.2007) US

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

(72) Inventors: **POOLE, James E.**; 5909 State Road, Gibsonia, Pennsylvania 15044 (US). **KULFAN, Anthony D.**; 81502 Lost Valley Drive, Mars, Pennsylvania 16046 (US). **KOLLAH, Raphael O.**; 311 Frey Drive, Wexford, Pennsylvania 15090 (US).

(74) Agents: **PALLADINO, Donald R.** et al.; PPG Industries, Inc., One PPG Place, Pittsburgh, PA 15272 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

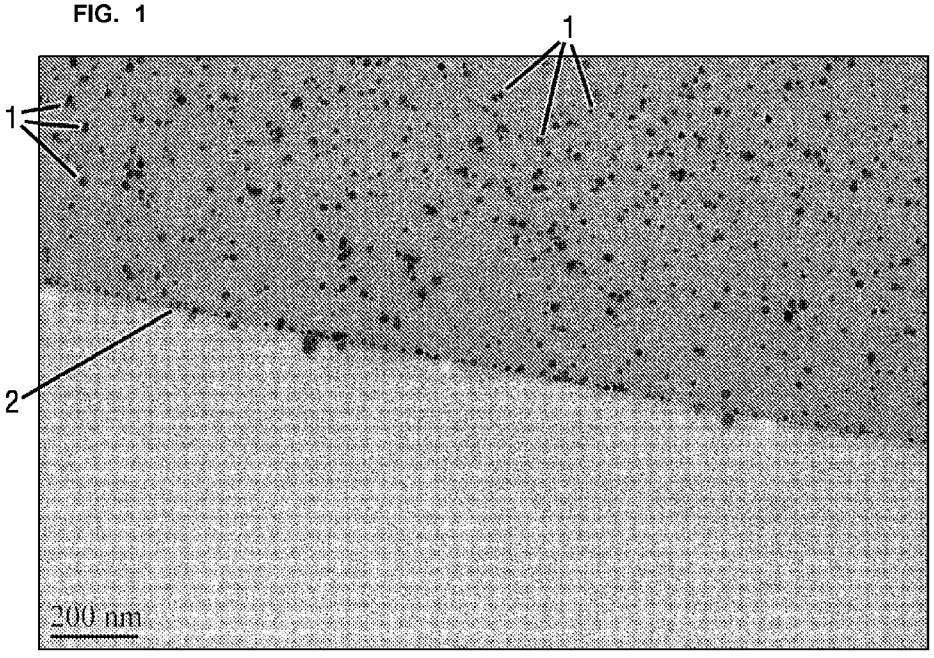
— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

[Continued on next page]

(54) Title: COATING FOR DECORATIVE METALS WITH IMPROVED MAR AND SCRATCH RESISTANCE AND METHODS OF APPLICATION

FIG. 1



(57) Abstract: Coated articles comprising a decorative metal substrate and a transparent cured coating thereon containing inorganic particles in which the concentration of particles in the exposed surface region of the cured coating is greater than the bulk region of the coating. Preferably, the transparent coating is applied by electrodeposition.

WO 2009/009641 A3

WO 2009/009641 A3

Published:
— *with international search report*

(88) Date of publication of the international search report:
5 March 2009