US008901198B2

(12) **United States Patent**
Kania et al.

(10) **Patent No.: US 8,901,198 B2**
(45) **Date of Patent: *Dec. 2, 2014**

(54) **UV-CURABLE COATING COMPOSITIONS, MULTI-COMPONENT COMPOSITE COATINGS, AND RELATED COATED SUBSTRATES**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 414 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **12/940,168**

(22) Filed: **Nov. 5, 2010**

(65) **Prior Publication Data**

US 2012/0115975 A1 May 10, 2012

(51) **Int. Cl.**

C08F 2/50	(2006.01)
C08J 3/28	(2006.01)
C08F 2/48	(2006.01)
C08F 2/46	(2006.01)
C08G 18/79	(2006.01)
C09D 175/16	(2006.01)
C08G 18/67	(2006.01)
C08G 18/32	(2006.01)

(52) **U.S. Cl.**

CPC ***C08G 18/792*** (2013.01); ***C08F 2/48*** (2013.01); ***C09D 175/16*** (2013.01); ***C08G 18/672*** (2013.01); ***C08G 18/3206*** (2013.01)

USPC **522/174**; 522/90; 522/96; 522/113; 522/114; 522/120; 522/116; 522/150; 522/152; 522/151; 522/8; 522/24; 522/25; 522/26; 522/27; 522/28; 522/29; 522/30

(58) **Field of Classification Search**

USPC 522/90, 96, 113, 114, 120, 121, 150, 522/152, 151, 174, 8, 24–30

See application file for complete search history.

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(57) **ABSTRACT**

Disclosed herein are solventborne liquid UV-curable coating compositions comprising: a radiation curable compound comprising an acrylate-terminated compound having greater than two unsaturated sites, wherein the acrylate-terminated compound comprises a reaction product of reactants comprising: an adduct of a polyisocyanate, wherein the adduct of a polyisocyanate comprises a reaction product of reactants comprising a polyisocyanate comprising greater than two isocyanate groups and a compound having groups reactive with the isocyanate groups of the polyisocyanate; and an active hydrogen-containing acrylate; and a photoinitiator composition that includes a first photoinitiator composition for providing surface cure and a second photoinitiator composition for providing through cure of the resultant coating layer. Also disclosed are related multi-component composite coatings, coated substrates, and methods for coating a substrate.

26 Claims, No Drawings