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Content

Editor's Note

Approaches to Innovation

— Prof. Long Lin

Mankind is blessed with an innate capability to innovate. Indeed, innovations take place in all walks of life and all types of business and industry all the time, mostly quietly in the background whilst some occasionally hit the headlines. However, whilst the vast majority of innovations are of an evolutionary nature, once in a while, ground-breaking innovations (and so in some cases more akin to inventions) are achieved.

High Performance Coatings

Functional/Multifunctional Coatings, Part II: Exploring Multiple Approaches to Obtaining Characteristics Required by End-Use Applications

— George R. Pilcher, Vice President, The ChemQuest Group, Inc., USA; David A. Cocuzzi, Vice President, The ChemQuest Group, Inc., USA

In the September 2020 issue of China Coatings Journal, we promised in the final paragraph to provide further discussion of chemistries that may be considered when attempting to provide state-of-the-art functionality to coatings. Rather than simply discussing an additive or two that might provide antifouling or pollution-mitigating characteristics, however, we propose that it is more helpful to consider the effect that is being sought—e.g., reduce a ship's drag or mitigate air pollution—and then consider how the surface of a coating might be modified to cause that effect to happen, and what chemistry might be applicable.

Innovative Moisture Curing Vinyl Alkoxysilane Polymer for High Performance Coatings

— Denis Heymans, Nathalie Havaux and David Vanaken, Hexion Research Belgium SA; Steven Mao, Hexion New Material Shanghai PR. China

Moisture-curing alkoxysiloxane resins have been increasingly used as isocyanate-free alternatives in marine and protective coating applications. Similar to 2K polyurethanes, these systems display a broad range of performance characteristics, depending on their structure and composition. However, the commercially available alternatives, acrylic- and epoxy-alkoxysiloxane, have seen limited market penetration, due to an unfavourable cost/performance ratio.

Multiple Effects of TiO₂ Pigment on Paint Gloss Retention

— Michael Diebold & Robert Li, Chemours Titanium Technology, USA

TiO₂ grade is known to affect the gloss retention of coatings, but this influence can be very complex. We often find that there is poor correlation between outdoor gloss retention results and other durability measurements, including both outdoor chalking results and accelerated gloss retention results. In this paper, we show that there are two independent effects of TiO₂ grade on exterior gloss retention performance.

Sustainable Solutions

Putting Paint Waste to Use: Maximum Sustainability is the New Normal

— Huzaifa Matawala, Paint Recyclist, Regent Paints Inc., USA

There was a time when paint manufacturers couldn't care less about the harm that they were causing to the earth by dumping paint waste in landfills and burning fuels for their own good. Since then, the paint and coating industry has come a long way. It is good to see that the industry is starting to realise the importance of recycling leftover paint materials.

Regular Columns

Industry News

- Heubach adds innovative flash rust inhibitors for waterborne anti-corrosive systems to its portfolio
- Borchers launches high-performance paint catalyst Borchi Dragon
- Elcometer Limited acquires Sagola S.A
- Covestro to acquire coating resins business from DSM
- AkzoNobel receives Boeing approval for colour blending in China
- PPG launches low-VOC waterborne coating system for China refinish market
- Nouryon and Atul receive environmental clearance to expand MCA production in India
- In memoriam: Rainer Heubach, owner of Heubach Group

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