

The Global Market for Anti-fouling and Easy-to-Clean Nanocoatings

<https://marketpublishers.com/r/G0E92E9C516EN.html>

Date: December 2017

Pages: 174

Price: US\$ 850.00 (Single User License)

ID: G0E92E9C516EN

Abstracts

Anti-fouling and easy-to-clean nanocoatings are applied to metal, glass, ceramic, stone and plastic surfaces for protection against biological, organic and chemical attack. Application is relatively simple and these coatings are transparent with good adhesion on the substrate without difficult pre-treatment. They offer anti-stick, easy-to-clean and anti-corrosion properties and possess excellent mechanical and chemical stability. This allows for exceptional corrosion prevention, improved safety and reduced maintenance on surfaces and structures.

This 174 page report highlights the latest innovations and products in the Anti-fouling and easy-to-clean nanocoatings market. Report contents include:

Technology analysis: Durable hydro and oleophobic coatings; Anti-stick properties leading to less staining and easy-cleaning-effect; Anti-graffiti; Inhibiting the adhesion of microbes and marine fouling organisms; Nano-coating for reduction of germs, virus, algae.

Market analysis: Analysis of end user markets for smart glass:

Marine coatings.

Construction and infrastructure.

Environmentally friendly coatings.

Sanitary equipment.

Kitchen and domestic articles.

Wind generators, solar cells and solar collectors.

Aerospace-Drag reduction and Insect decontamination.

Anti-fouling pipeline coatings.

Market revenues forecasts: Detailed forecasts of the Smart Glass sector, by end user markets (revenues \$ millions), to 2025.

Producer profiles: Anti-fouling and easy-to-clean nanocoatings producer profiles (Profiles of 146 producers).

Contents

1 EXECUTIVE SUMMARY.

- 1.1 High performance coatings
- 1.2 Nanocoatings.
- 1.3 Market drivers and trends.
 - 1.3.1 New functionalities and improved properties
 - 1.3.2 Need for more effective protection and improved asset sustainability
 - 1.3.3 Cost of weather-related damage.
 - 1.3.4 Cost of corrosion.
 - 1.3.5 Need for improved hygiene.
 - 1.3.6 Increased demand for coatings for extreme environments
 - 1.3.7 Sustainable coating systems and materials.
 - 1.3.7.1 VOC and odour reduction.
 - 1.3.7.2 Chemical to bio-based
- 1.4 Market size and opportunity
 - 1.4.1 Main markets
 - 1.4.2 Regional demand
- 1.5 Market and technical challenges
 - 1.5.1 Durability
 - 1.5.2 Dispersion.
 - 1.5.3 Transparency
 - 1.5.4 Production, scalability and cost.

2 INTRODUCTION

- 2.1 Properties of nanomaterials.
- 2.2 Categorization
- 2.3 Nanocoatings.
- 2.4 Hydrophobic coatings and surfaces
 - 2.4.1 Hydrophilic coatings
 - 2.4.2 Hydrophobic coatings
 - 2.4.2.1 Properties.
- 2.5 Superhydrophobic coatings and surfaces.
- 2.6 Oleophobic and omniphobic coatings and surfaces
 - 2.6.1 SLIPS
 - 2.6.2 Covalent bonding
 - 2.6.3 Step-growth graft polymerization.

2.6.4 Applications.

3 NANOMATERIALS USED IN COATINGS.

4 NANOCOATINGS REGULATIONS

5 THE GLOBAL MARKET FOR ANTI-FOULING AND EASY-TO-CLEAN NANOCOATINGS.

5.1 Market drivers and trends.

5.1.1 Increased durability and cleanability of exterior and interior surfaces

5.1.2 Cost of Marine biofouling

5.1.3 Reducing costs and improving hygiene in food processing.

5.1.4 Cost of graffiti damage

5.2 Benefits of nanocoatings

5.3 Applications.

5.4 Global market size

6 ANTI-FOULING AND EASY-TO-CLEAN NANOCOATINGS COMPANIES. 74-169 (146 COMPANY PROFILES)

7 REFERENCES.

List Of Tables

LIST OF TABLES

Table 1: Properties of nanocoatings

Table 2: Markets for nanocoatings

Table 3: Disadvantages of commonly utilized superhydrophobic coating methods

Table 4: Categorization of nanomaterials.

Table 5: Technology for synthesizing nanocoatings agents

Table 6: Film coatings techniques.

Table 7: Contact angles of hydrophilic, super hydrophilic, hydrophobic and superhydrophobic surfaces

Table 8: Applications of oleophobic & omniphobic coatings

Table 9: Nanomaterials used in nanocoatings and applications.

Table 10: Anti-fouling and easy-to-clean nanocoatings-Nanomaterials used, principles, properties and applications.

Table 11: Anti-fouling and easy-to-clean nanocoatings markets, applications and potential addressable market.

Table 12: Market assessment for anti-fouling and easy-to-clean nanocoatings

Table 13: Revenues for anti-fouling and easy-to-clean nanocoatings, 2010-2025, US\$, conservative and optimistic estimates

List Of Figures

LIST OF FIGURES

Figure 1: Global Paints and Coatings Market, share by end user market

Figure 2: Estimated revenues for nanocoatings, 2010-2025 based on current revenues generated by nanocoatings companies and predicted growth. Base year for estimates is 2015

Figure 3: Market revenues for nanocoatings 2015, US\$, by market

Figure 4: Market revenues for nanocoatings 2025, US\$, by market

Figure 5: Markets for nanocoatings 2015, %.

Figure 6: Markets for nanocoatings 2025, %.

Figure 7: Market for nanocoatings 2015, by nanocoatings type, US\$.

Figure 8: Markets for nanocoatings 2015, by nanocoatings type, %

Figure 9: Market for nanocoatings 2025, by nanocoatings type, US\$.

Figure 10: Market for nanocoatings 2025, by nanocoatings type, %

Figure 11: Regional demand for nanocoatings, 2015.

Figure 12: Commercially available quantum dots

Figure 13: Techniques for constructing superhydrophobic coatings on substrates

Figure 14: Electrospray deposition

Figure 15: CVD technique

Figure 16: SEM images of different layers of TiO₂ nanoparticles in steel surface.

Figure 17: (a) Water drops on a lotus leaf

Figure 18: A schematic of (a) water droplet on normal hydrophobic surface with contact angle greater than 90° and (b) water droplet on a superhydrophobic surface with a contact angle > 150°.

Figure 19: Contact angle on superhydrophobic coated surface

Figure 20: Self-cleaning nanocellulose dishware

Figure 21: SLIPS repellent coatings.

Figure 22: Omniphobic coatings.

Figure 23: Markets for anti-fouling and easy clean nanocoatings 2015, by %

Figure 24: Potential addressable market for anti-fouling and easy-to-clean nanocoatings.

Figure 25: Revenues for anti-fouling and easy-to-clean nanocoatings, conservative and optimistic estimates.

I would like to order

Product name: The Global Market for Anti-fouling and Easy-to-Clean Nanocoatings

Product link: <https://marketpublishers.com/r/G0E92E9C516EN.html>

Price: US\$ 850.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G0E92E9C516EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970