

AkzoNobel

It's Not Just Watching Paint Dry

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Who am I?

Name: Remya Norris
Company: AkzoNobel
Job: Technologist II
Department: Marine Coatings R&D
Time at company: 12 years
Experience: Shop primers
Primers
Finishes
Beyond VOC compliance
General support
Foul release coatings



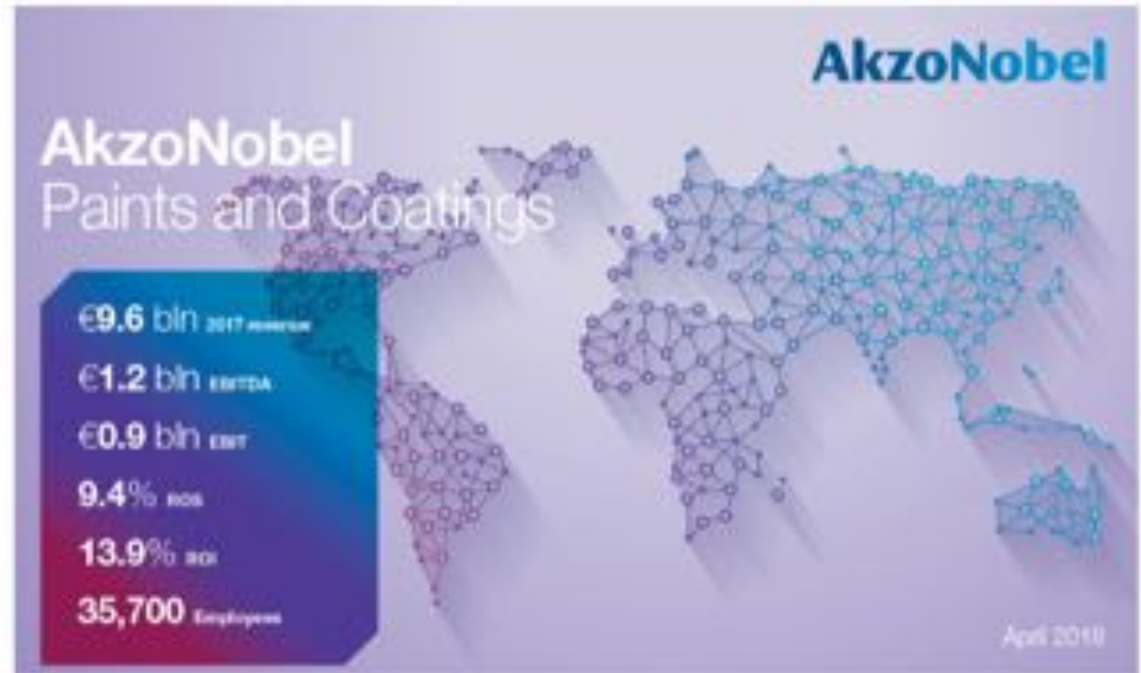
Today's agenda

- Who are AkzoNobel?
- Coatings departments at Felling
- The science of paint
- Examples

Who are AkzoNobel

AkzoNobel: Paints and Coatings

- Established in 1792
- Headquarters in the Netherlands
- Employ ~36,000 people
- Brands include:



AkzoNobel



Sydney Harbor Bridge, Australia



Gardens by the Bay, Singapore



The Maracanã Stadium, Brazil



Burj Al Arab, Dubai, UAE



The London Eye, UK



Brooklyn Bridge, New York, USA

Different coatings departments

Protective Coatings

Key Areas for Coatings

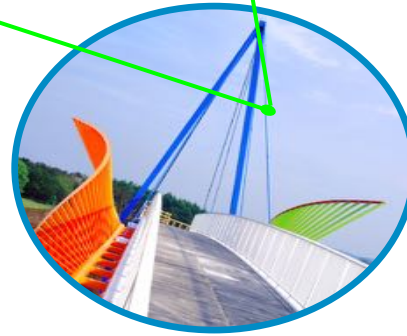
Fire Protection

Chartek passive fire protection



Steelwork

Anticorrosive products



Cosmetic Finishes

High performance cosmetics



Storage Tanks

Tank Lining Systems

Underwater Structures

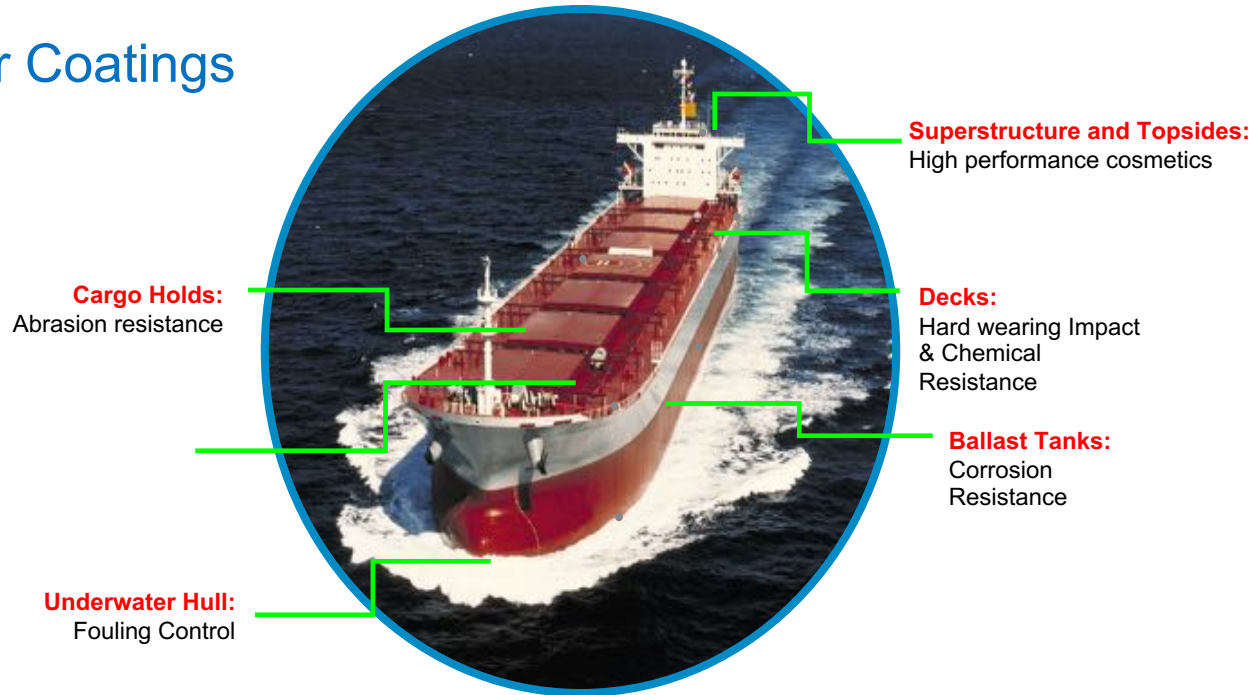
Non-toxic Antifouling systems

High Temperature

Heat resistant coatings

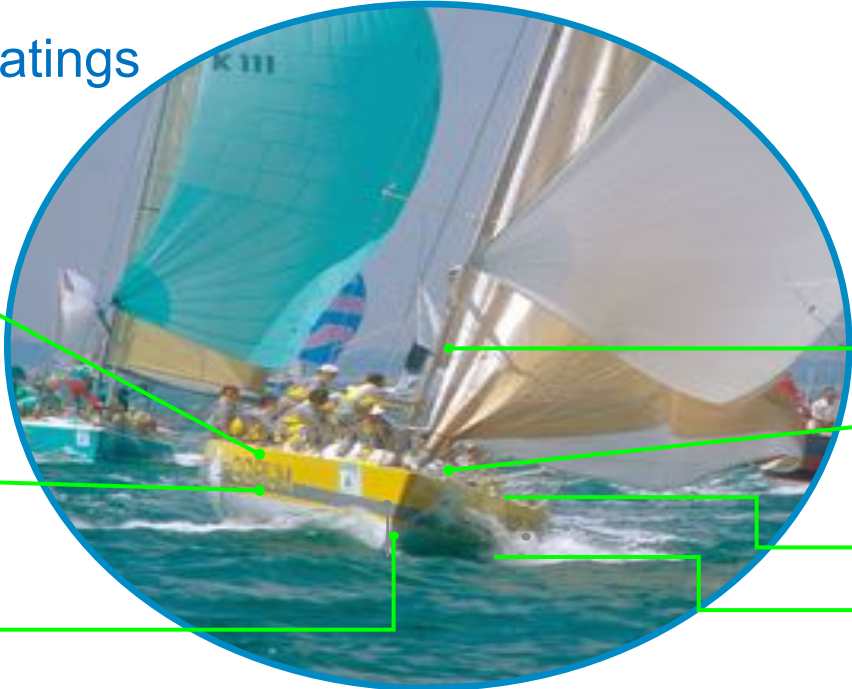
Marine Coatings

Key Areas for Coatings



Yacht Coatings

Key Areas for Coatings



Topside Paints

Very high quality cosmetic properties

Boottop Antifoulings

Fouling Control

Antifoulings

Fouling Control

Varnish on spars and woodwork

Robust mechanical and aesthetic properties

Deck Paint

Hard wearing Impact Resistance

Bilge Coatings

Corrosion resistance

Primers fillers & finishes

Lightweight, anticorrosive protection and smoothing properties

Other Coatings

- Decorative Paints
- Powder Coatings
- Automotive & Speciality Coatings
- Industrial Coatings



The science of paint

Basics of paint

There are 4 basic components of paint:



Pigments



Resin



Binder



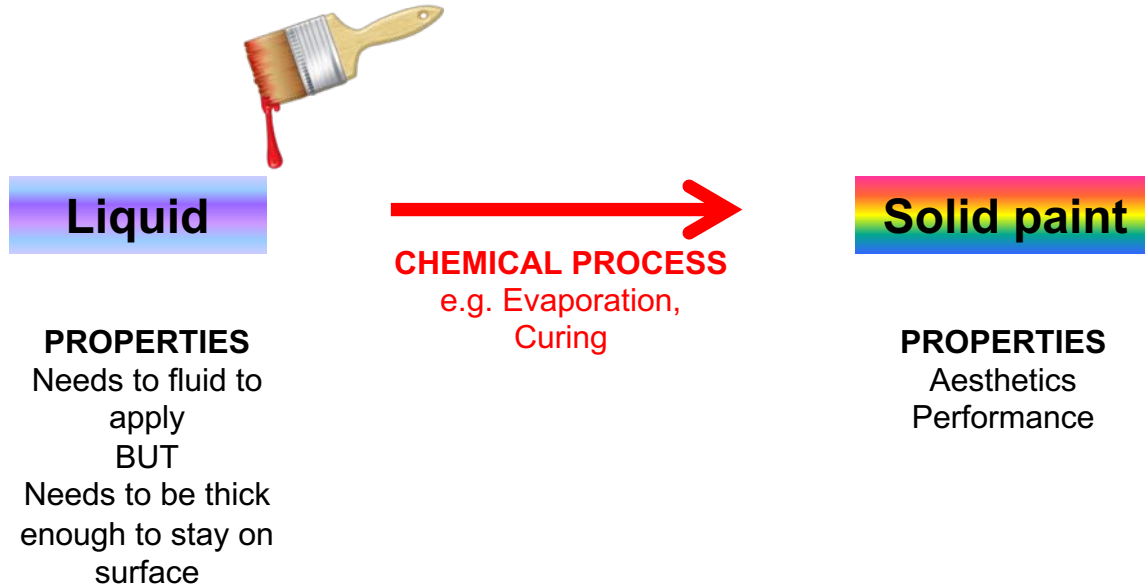
Solvents

You can also add additives to enhance properties...



Additives

Science of paint



Multiple packs

The 'chemical process' determines the number of 'packs' in your paint

Solid paint



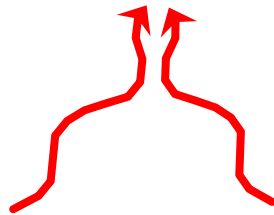
Evaporation

Liquid



1 pack

Solid paint



Resin/Binder reaction

Liquid



2 pack

Solid paint



Resin/Binder/Catalyst
reaction

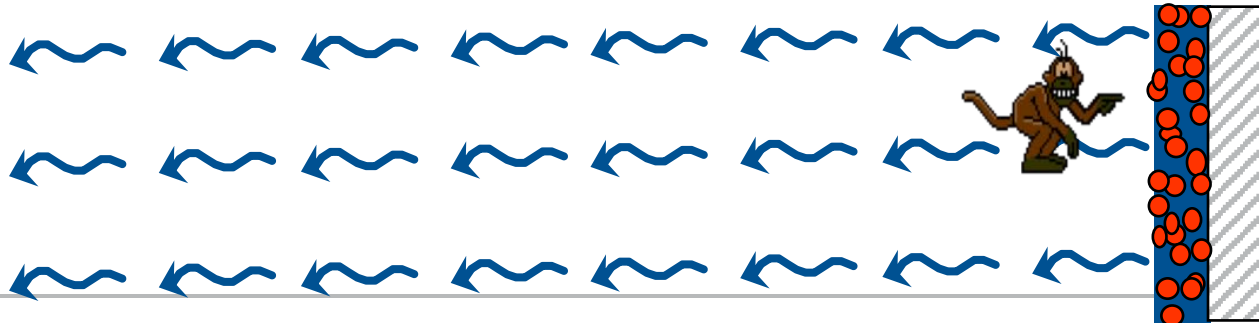
Liquid



3 pack

Types of paint

- Corrosion Prevention
- Cargo Carriage
- Aesthetics
- Safety
- Fouling prevention



Testing paint

Different products, different characteristics, different testing

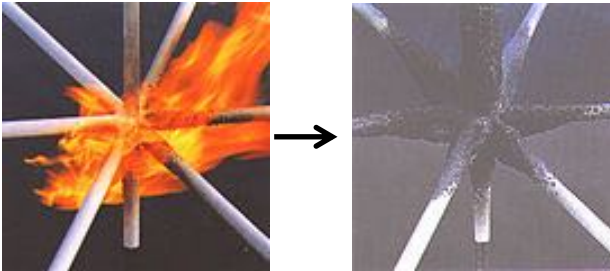
Foul Release:

- Barnacle push-off



Fire Protection:

- Char test



Top coat testing

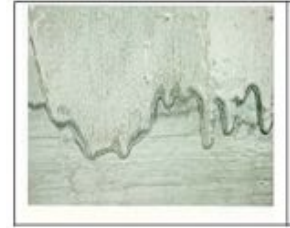
- Aesthetic tests
- Durability tests



Figure 3. Samples exhibiting high gloss (left) and haze (right).

Testing paint

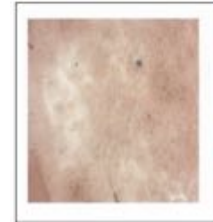
- Hold up: When you apply your paint to a vertical surface, does it stay there?
- Storage: Is your paint stable after being stored in various conditions?
- Dry times: Does your paint dry?
- Pot life: How long is your paint usable once mixed?
- Appearance: Are there any visible defects?



Sagging



Settlement



Chalking

Examples

Examples of Yacht coatings



Examples of coatings inside a luxury yacht



Examples of Marine coatings



Examples of Protective coatings

AkzoNobel



**Green Point Stadium,
South Africa**



Examples of Protective coatings



**Sydney Harbour Bridge,
Australia**

Examples of Protective coatings



**Millennium Bridge,
UK**



Examples of other AkzoNobel coatings



**Powder Coatings
Wembley Stadium,
UK**