Learning track and objectives

**Insight**
- Need to build green
- Green building benefits
- Key market drivers & sectors

**Know**
- Main certification standards
- LEED v4 and relevant knowledge
- Jotun’s support

**Act**
- LEED project approach
- Jotun’s green building solutions
- Why water born coatings?

Global Warming

Dear Humans,
You are the weapons of mass destruction:
—annoyingly, The World

That day when the North Pole became a lake...

SINCE RIO 1992, GLOBAL FOREST COVER HAS DECREASED BY THREE MILLION SQUARE KILOMETRES

Green forest converted to deserts

Global Population

7 billion 2011

9 billion 2045

Cities grew as well

Disturbed eco balance
Mass consumption, mass production, mass waste

Cities consume 75% of the world’s energy and produce 80% of its greenhouse gas emission

**WHO says air pollution in many cities is breaching its guidelines**
- The World Health Organization says 1,600 cities in 91 countries revealed that nearly 90% of people in urban centers breathe air that fails to meet levels deemed safe!
- Half of the world’s urban population is exposed to pollution at least 2.5 times higher than it recommends.
- Beijing had the highest recorded pollution in April 2014
- Tehran Air Pollution Keeps Iran’s Capital Shut Down 2013

**Greenhouse effect – is it good or bad?**

**Scary future**

**Green Building**

US Environmental Protection Agency defines green building as:
- the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building’s life-cycle.
- also known as a sustainable or high performance building
Conventional vs. Green Buildings

Social benefits: Health & Productivity

Cost premium: perception gap

Green building standards - examples

LEED v4 goals

Social benefits: Health & Productivity

Cost premium: perception gap

Green building standards - examples

LEED v4 goals
LEED v4 – certification levels

LEED v4 aiming for zero impact

Jotun’s contribution to points

Impact of point contribution from Jotun

What are the water-borne coatings?

- "Same, same, but different"
  - Alkyds
  - Acrylic
  - Epoxy
  - Polyurethane

- A coating where the traditional solvents are replaced with water
  Dependant on the choice of binder, small amounts of special solvent (co-solvent), are added to melt the polymer particles together during drying
GBS & WB coatings / Ashraf Wassef / August 2018

**STEEL PROTECTION**

- Green and fast
  - Water-borne single pack acrylic primer & topcoat
  - Low Gloss and Aluminium finishes available
  - Excellent HSE profile
    - Reduced impact on applicator health and environment
  - Contributes towards satisfying:
    - Credits EQ and MR under LEED® v4

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**Penguin WF**

- Fast and friendly
  - Water-borne 2 pack epoxy
    - With visible end of pot life
    - Transport and storage down to sub-zero temperatures
  - Minimises health risk
  - Low VOC and high flash point
  - Meet ISO 12944- up to CX very high durability in a full system
  - Contributes towards satisfying:
    - Credits EQ and MR under LEED® v4

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**FIRE PROTECTION**

- Green and friendly
  - A water-borne epoxy coating satisfying LEED® v4 requirements
  - Penguin WF fully complies with LEED® v4 requirements for VOC content and VOC emission

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**SteelMaster**

- Fire protection engineered for a better environment.
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Jotun Protective

**Steelmaster 1200WB**

The most efficient 120 minute thin film intumescent product globally available within its category

- Waterborne fire protection
- HAPS free, low odor
- Safe for multiple trades for onsite application
- Up to 180 minutes fire protection
- Contributes towards satisfying:
  - Credits EQ and MR under LEED® v4

**Steelmaster 600WB**

Best performing 60 minute fire protection in the market

- Waterborne Fire Protection
- Specifically designed:
  - Single coat application for a majority of 60 minute steel sections
  - High volume solids, low odour
- Contributes towards satisfying:
  - Credits EQ and MR under LEED® v4

**Why waterborn costings?**

- LOW VOC
- SAFER INDOOR APPLICATION
- LOW ODOR
- EASY MAINTENCE

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