Fireretardent Wood – Possibilities, uses and the importance of correct documentation
• Context
• Fire retardent wood? Methods.
• Documentation
• Production process
• Planning/supplying
• Some references
• Check list
WOOD IN TIME

The building/estate sector swallow resources!

- About 40% of total energy usage*
- About 30% of total pollution*
- About 40% of total waste*

*traguiden.se
WOOD IN TIME

• Renewable resource.
• Environmentally sound
• Economic advantages
• High structural strength per weight
• Flexible, multi-purpose material

WOOD TREND!
WOOD IN TIME

• Renewable resource.
• Environmentally sound
• Economic advantages
• High structural strength per weight
• Flexible material

Challenge!

WOOD TREND!
FIRE SAFETY REQUIREMENTS

- National authorities set rules and standards for buildings
- Architect/Fire consultant prescribes materials with correct product performance
- Builder/architect/contractor/fire consultant must purchase products that meet set regulations
- How can one assure that product standards are met in the purchase process?
FIRE RETARDENT WOOD?

• Wood or combined products with improved fire resistency

• Single Burning Item (SBI) or full scale facade testing (SP Fire 105)
HOW?

- Impregnation
- Industrial painting/lacquering
- Manual painting/lacquering
- Spray

• Different requirements? NO!
• Same demands for
  • Performance / fire retardent properties
  • Certification and documentation.
  • Emissions and durability

DOES IT WORK?
UBEHANDLET TRE D-s2,d0 VS. BRANNIMPREGNERT TRE B-s1,d0
How to assure that all regulations are met by a given product candidate?

- CE- certificate (Certificate of Constancy of performance)
  - Approved by accredited third party.
  - NB! Euroclasses only!

- Declaration of Performance (DoP).
  - Producer, control system 4, reference to CE-cert., performance, hazardous contents

- Type approval.
  - Includes emission and environmental requirements and
  - DURABILITY.
PRODUCTION PROCESS

• Find raw material
• Wood working
• Sticking
• Impregnation
• Drying
• Rear side marking
• Surface treatment
PURCHASING PROCESS

• Find a competent partner with relevant experience
  • Ask for relevant references

• Make sure that documentation meets legislations
  • DoP, CE, environment, durability
  • Confirmed by accredited third party.

• Make sure that the product is suitable for the intended application.
  • Is the wood species included in the certificate?
  • Is the actual dimension included in the certificate?
  • Durability/Maintainence/Life Cycle Economy

• Product quality.
  • Suitable for intended use?
  • Importance of product appearance?
  • Visual appearance of fire retardent product vs. product without retardant
Brannpanel®

Lilleby

Pir Nord, Gardermoen

Mjøstårnet
Amalie Skram VGS Bergen

Ullevål Tårn
PROSJEKTVIDEO FRA NYE LILLEBY, TRONDHEIM (VEIDEKKE ENTREPRENØR)
CHECK LIST

• B-s1,d0? Don’t panic!
• Demand correct and relevant documentation:
  • DoP/CE/TA
  • Assure that the documentation is verified
• Approved fire test ≠ CE or Type approval
• Pick a competent partner.
• Regardless of material, long term durability starts with good design, including:
  • Proper detailing
  • Proper product selection
• Order in time!
  • Good planning and early decision making essential to ensure procurement and implementation processes are smooth.