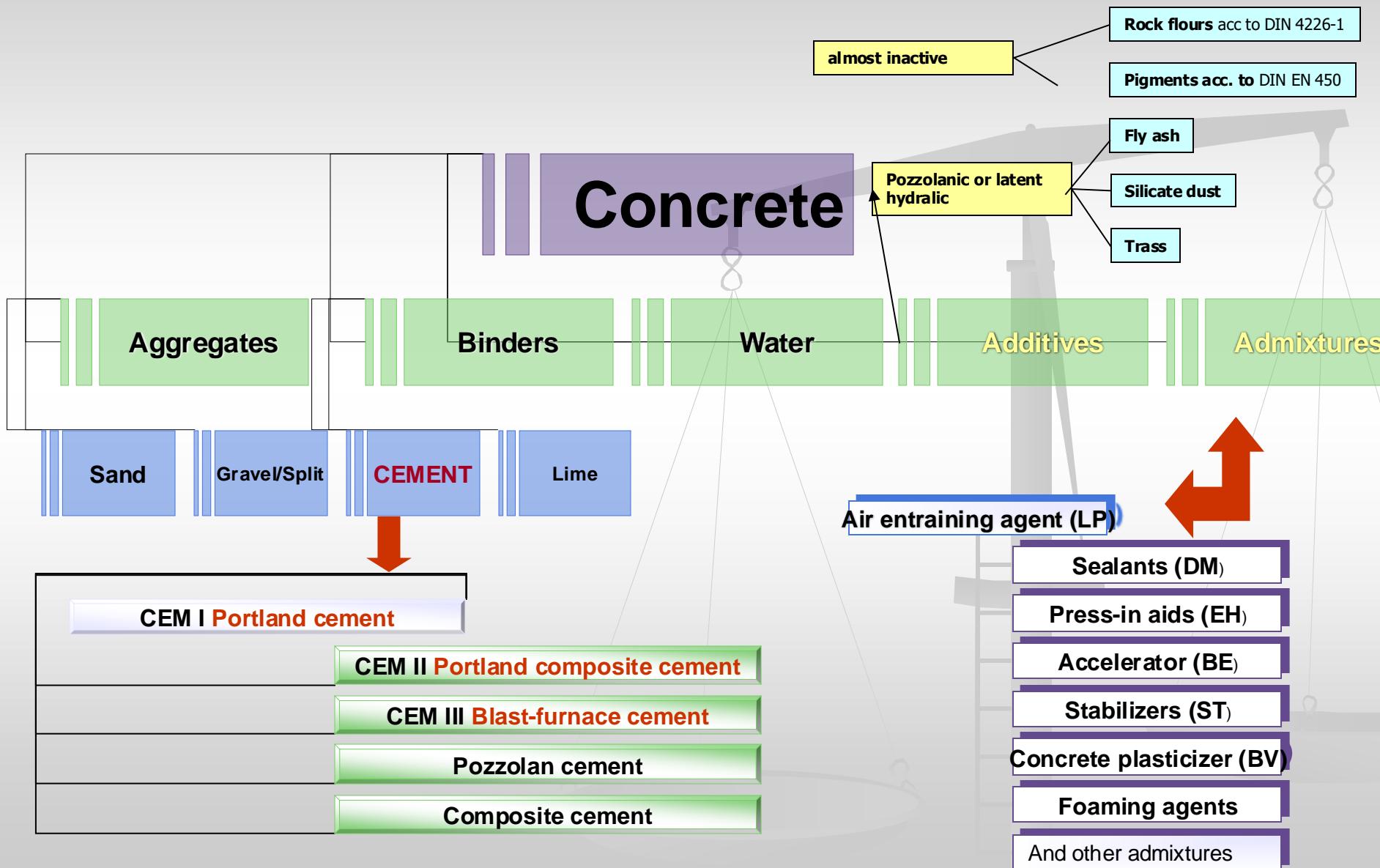
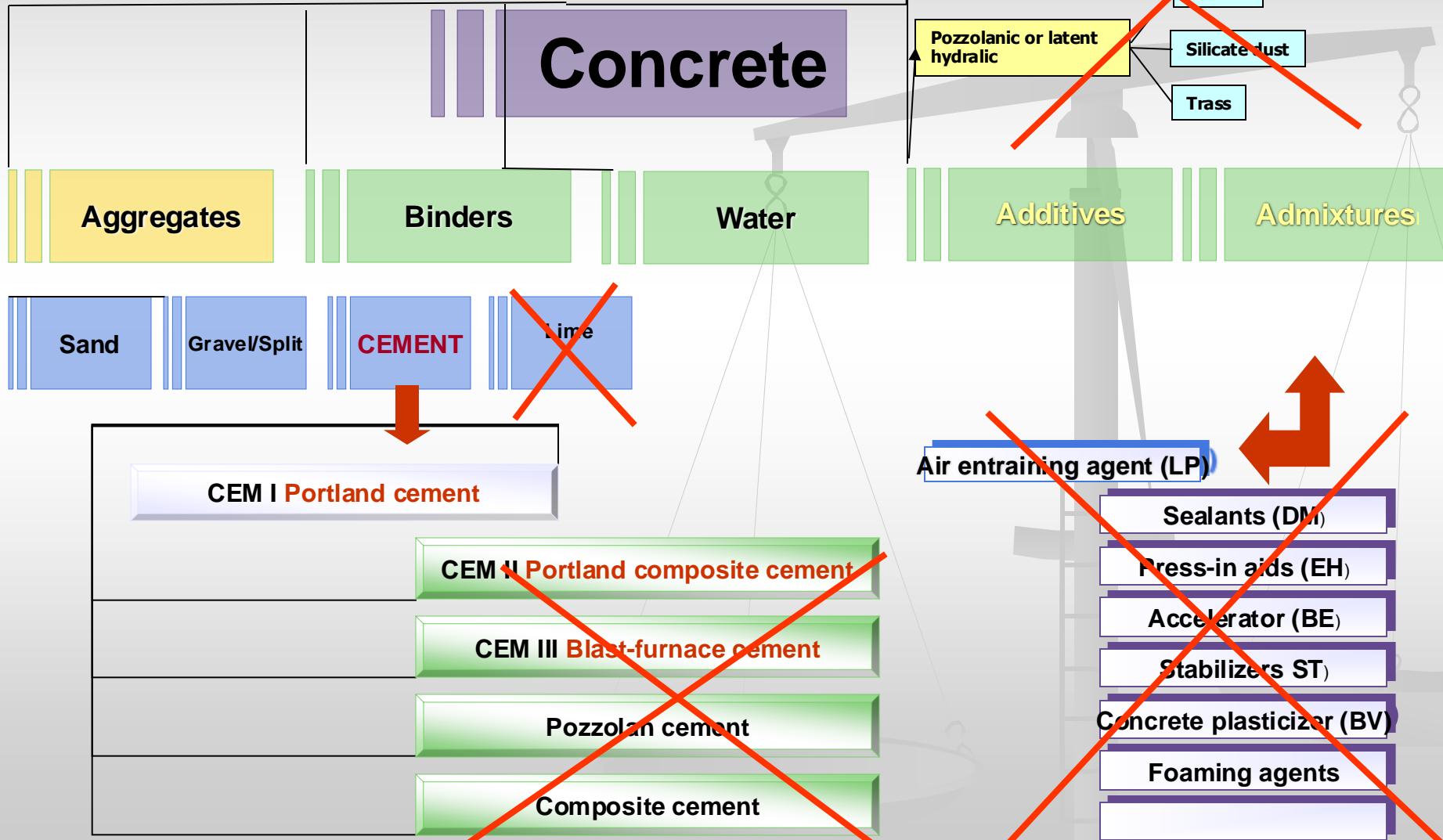


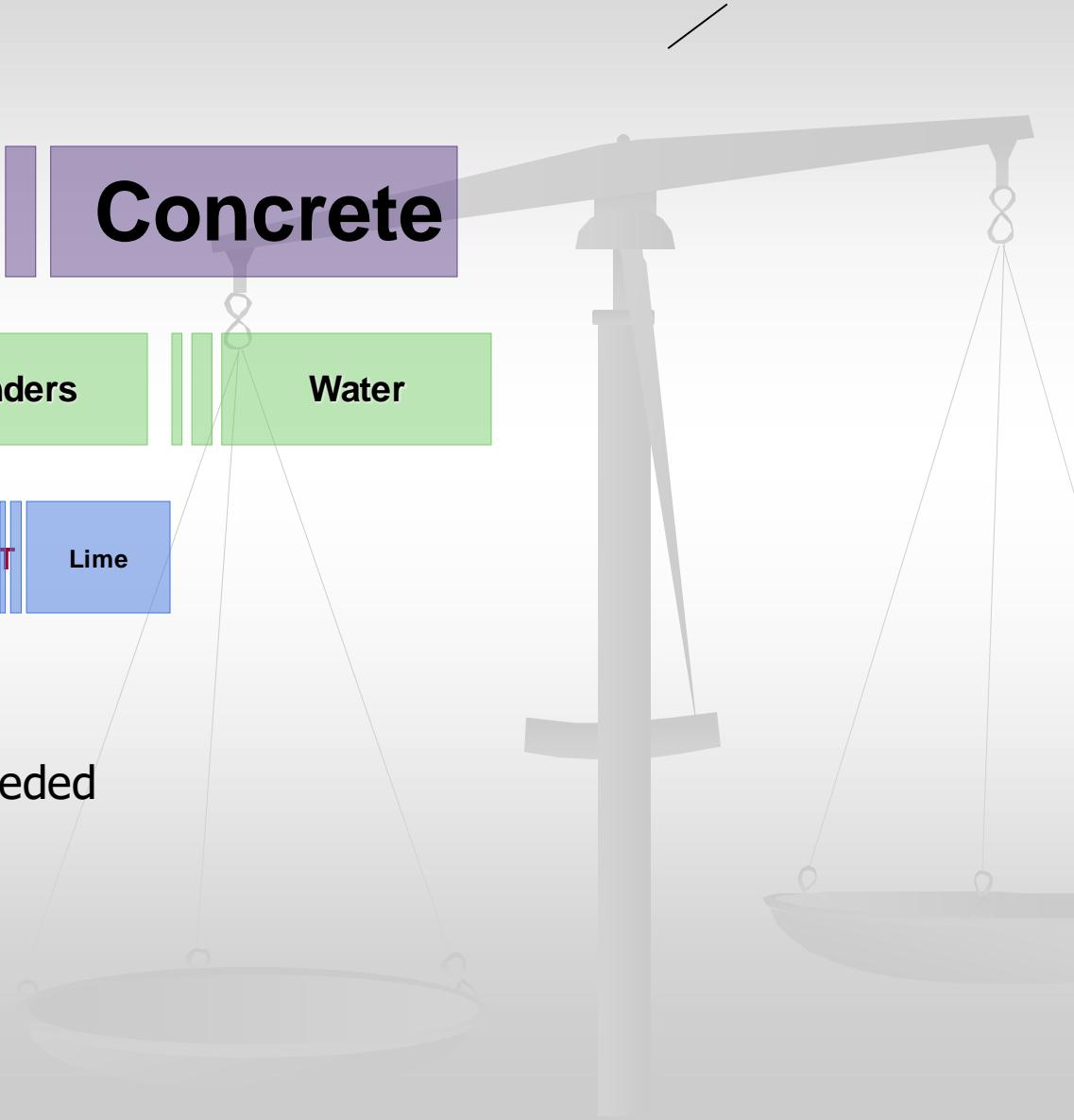
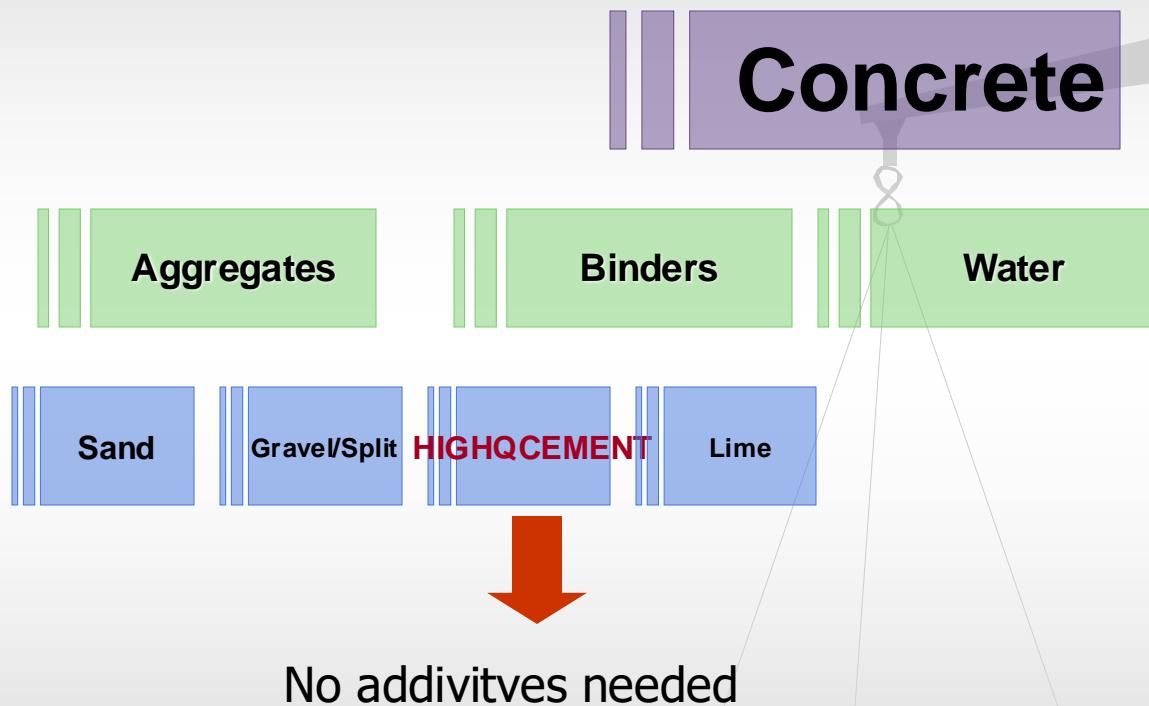
# Conventional concrete production



# Production aerodurit concrete



# Production HighQ-CEM concrete

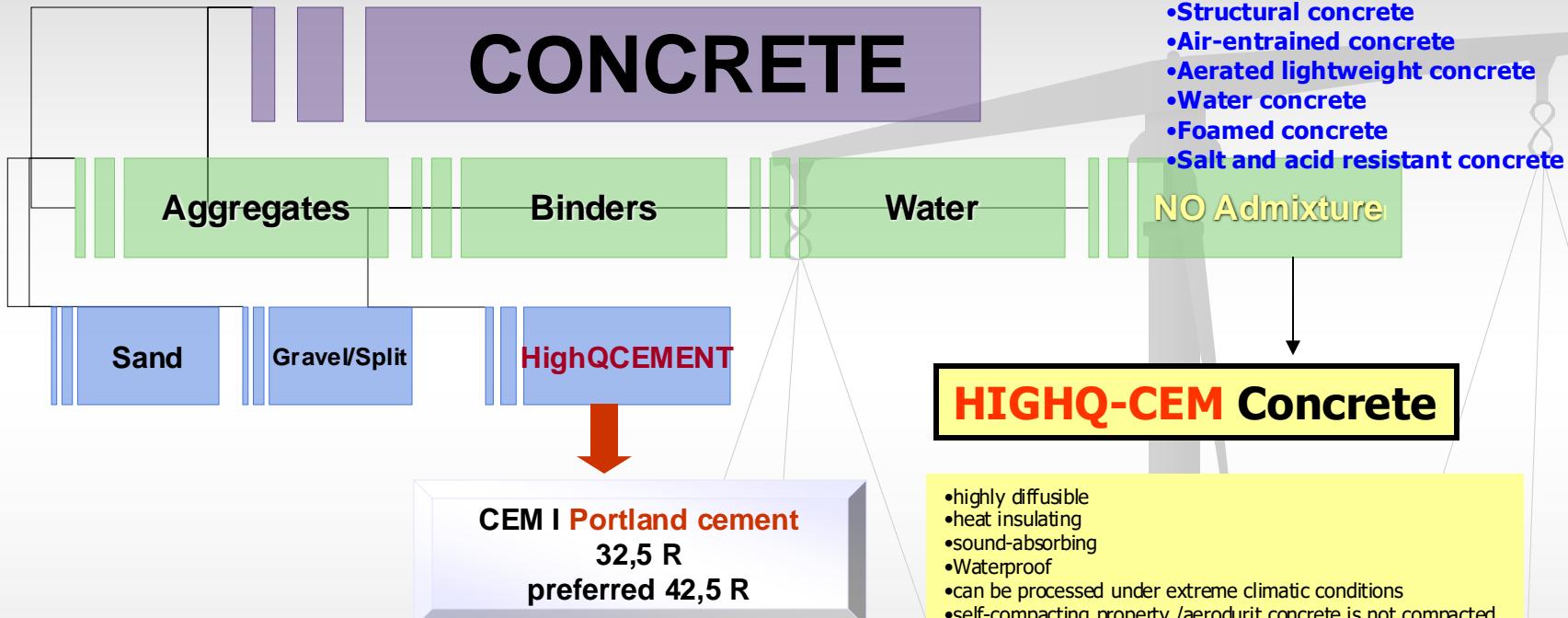


# Production HighQ-CEM concrete

By using the HighQ-CEMENT it is possible:

both industrially

And in the cold process on site\*



• HighQ-CEM concrete (at usual mix: 1000g/m<sup>3</sup>) achieves strengths corresponding to EN 206, C18/20, C20/22, C 35, C45 and higher and LC 16/22 despite high air/microporous content (micropores: 0.03-< =0.300 mm)

• All processes defined in exposure classes (1-7, XO/XM) can be treated with a single aerodurit Multi Additive

- highly diffusible
- heat insulating
- sound-absorbing
- waterproof
- can be processed under extreme climatic conditions
- self-compacting property (aerodurit concrete is not compacted and not vibrated)
- low heat of hydration
- durable

- low-shrink
- does not crawl
- does not bleed
- no sedimentation
- acid and alkali resistant
- high frost and dew resistance
- no corrosion of steel reinforcement. (no carbonation)
- non-flammable

## Average Price of C25 and C35 Concrete & Standard Additives Costs

### Global Average Price of Concrete (per m<sup>3</sup> in EUR)

- **C25 Concrete:** The average price of C25 concrete is approximately **€75 - €100** per cubic meter.
- **C35 Concrete:** The average price of C35 concrete is around **€85 - €120** per cubic meter.

### Cost of Standard Additives (per m<sup>3</sup> of Concrete)

To achieve the required strength, workability, and durability in C25 and C35 concrete, several additives are commonly used. The typical cost of additives is about **€5 - €20** per cubic meter, depending on the region and the specific properties needed.

### Common Additives in C25 and C35 Concrete

- **Plasticizers/Superplasticizers:** Improve workability and reduce water content without affecting strength. Cost: **€2 - €7/m<sup>3</sup>**.
- **Air-entraining agents:** Enhance durability, especially in freeze-thaw conditions. Cost: **€1 - €5/m<sup>3</sup>**.
- **Accelerators:** Speed up curing time, especially in colder climates. Cost: **€3 - €8/m<sup>3</sup>**.

**In TOTAL: 6 € - 20 € for basic Additives**

# Additives for Specialized Properties in Concrete

## Waterproofing Additives

- **Additive Type:** Hydrophobic agents (e.g., silicates, water-repellent compounds).
- **Cost:** Approx. **10-15 EUR per cubic meter**.
- **Purpose:** Improves the water resistance of the concrete, making it suitable for wet environments and below-ground applications.

## Lightweight Concrete Additives

- **Additive Type:** Lightweight aggregates (e.g., expanded clay, pumice) or foam agents.
- **Cost:** **10-20 EUR per cubic meter**.
- **Purpose:** Reduces the weight of the concrete by **15-20%**, ideal for non-load-bearing structures or areas with weight restrictions.

## Thermal Insulation Additives

- **Additive Type:** Thermal insulation additives (e.g., aerogels, polystyrene beads).
- **Cost:** Around **15-25 EUR per cubic meter**.
- **Purpose:** Enhances the thermal insulation properties of concrete, reducing heat transfer through walls.

## Sound Insulation Additives

- **Additive Type:** Acoustic dampening materials (e.g., rubber granules, special fibers).
- **Cost:** **10-15 EUR per cubic meter**.
- **Purpose:** Improves soundproofing, reducing noise transmission in buildings.

## Salt and Acid Resistance Additives

- **Additive Type:** Special anti-corrosion additives (e.g., microsilica, polymeric agents).
- **Cost:** **10-20 EUR per cubic meter**.
- **Purpose:** Increases resistance to salt and acidic environments, commonly used in coastal or industrial zones.

**In TOTAL: 55 € - 95 € for achieving all this special characteristics**