

Denka Fine CSA-N

Denka Fine CSA-N (previously named Fast Demoulder-N) is a fast demoulding additive for concrete production. This product promotes early strength development and reduces shrinkage.

Key Benefits

- Shorter production cycle of moulds
- Reduced drying shrinkage and cracking
- Enhanced concrete durability

Typical Applications

- Precast elements e.g. segments, box culverts
- Increased early strength development in concrete, including concrete with SCM's

Features

- **Higher early strengths** - for faster mould turn-around
- **Higher ultimate strengths** - in the order of 14%+
- **Shrinkage reduction** - up to 30%
- **Low temperature conditions** – assists strength development significantly and can reduce heat curing requirements
- **Reduced bleed water**
- **Compatible** with supplementary cementitious materials
- Possible alternative to liquid shrinkage reducing admixtures (SRA's)

Mechanism

The main purpose for Fine CSA-N is the improvement of early stage strength by promoting cement hydration, but it has shrinkage reduction properties as well.

When using Fine CSA-N, the hydration reactions of cement are accelerated compared with normal concrete. Therefore the volume of unreacted cement is lower than normal concrete and it displays lower shrinkage properties.

Its mechanism of shrinkage reduction is different from commonly used SRA's.

Dose Rate

Dosed as a cement replacement between 10-30kg/m³ – typically dosed at 20 kg/m³