SUPERPLASTICIZER (Water Reducing Agent)

YOUNG'S CORPORATION

Product Introduction



PC Main Application 1

- High-Performance Concrete, HPC
- If retention of a high-slump concrete required (LNG tank)
- That require a high water reducing rate of concrete secondary product
- High-rise buildings
- Self-compacting concrete, SCC
- Aggregates such as crushed sand, if quality is poor







PC Main Application 2 **High Performance Concrete** ready-mixed concrete (RMC) Self-compacting concrete Method of **General Concrete** Manufacture (Conversion trend) Secondary product Files, and Hume, segment Apartment, apartment **Building** residential complex, high-rise buildings, airports Application Highway, High Speed Rail, **Civil Structures** tunnels, runways, dams, bridges, and underwater structures

PC is a big difference in usage between the PNS, but in general high-performance concrete has shown a tendency to increase PC usage.

Classification of PC



PC Introduction

Plasticizer	Retention Agent	Defoamer
Superplasticizer Important initial work	Retained superplasticizer Performance in maintaining workability	High-performance PC systems Defoamer The purpose of entraining air removal

Two products are mixed in proper proportions for optimal performance

Emphasis on water reducing?

Emphasis on maintain?

Product of approximately 0.1 to 0.2% range

PC Application



The PC is called High-range water reducing agent or Superplasticizer by using purposes.

workability

PC effect principle



between the particles be united)

Improved workability of cement particles are dispersed

Dispersion mechanism of PC



electrostatic repulsion

PC(superplasticizer) Dispersion Performance

W/C 35 %, S/A 45 %, C 423 kg/m³, FA 47 kg/m³

Not added the PC

Added the PC (0.4 – 0.5 %)

Using 1/3 - 1/4 quantity of the PNS, Can be used to obtain the same liquidity

(Based on the same solid content)



The using effects of mixed PC superplasticizer and preservative agent



Mixing product performance means hourly average value of liquidity of plasticizer and preservative agent.

Depending on the ratio of mixing products, close to the plasticizer performance or preservative agent performance.

