

MIGHTY 21PSD KAO

Powder-type WR / Initial Fluidity, High Early Strength Type

Features

- **Excellent dispersing performance:** Fluidity is achieved even at extremely low dosages as compared to standard powder-type water reducers. Also, superb fluidity retention allows for extended handling times.
- **Early hardening:** No setting retardation, with outstanding early strength development.

MIGHTY 21PSD adheres to and surrounds cement particles with long polymer chains; generating a three-dimensional repulsive force. This repulsive force inhibits the coagulation of cement particles, allowing for high dispersion and excellent early hardening to be achieved.

* MIGHTY 21PSD is a polycarboxylate high performance water reducer.

Applications

MIGHTY 21PSD can be used in the following premixed concrete applications.

Self-leveling material, grout material, polymer cement mortar, base layer adjustments etc.

Experimental Test Results

<Initial fluidity>

Specified fluidity performance can be achieved even at extremely low dosages as compared to standard powder-type water reducers.

<Experimental Conditions> W/C=24%, S/C=100%, 20°C

Cement (C) : Domestic ordinary Portland cement (700g; SD=3.16)

Sand (S) : River sand (700 g; SD=2.50, FM=2.73)

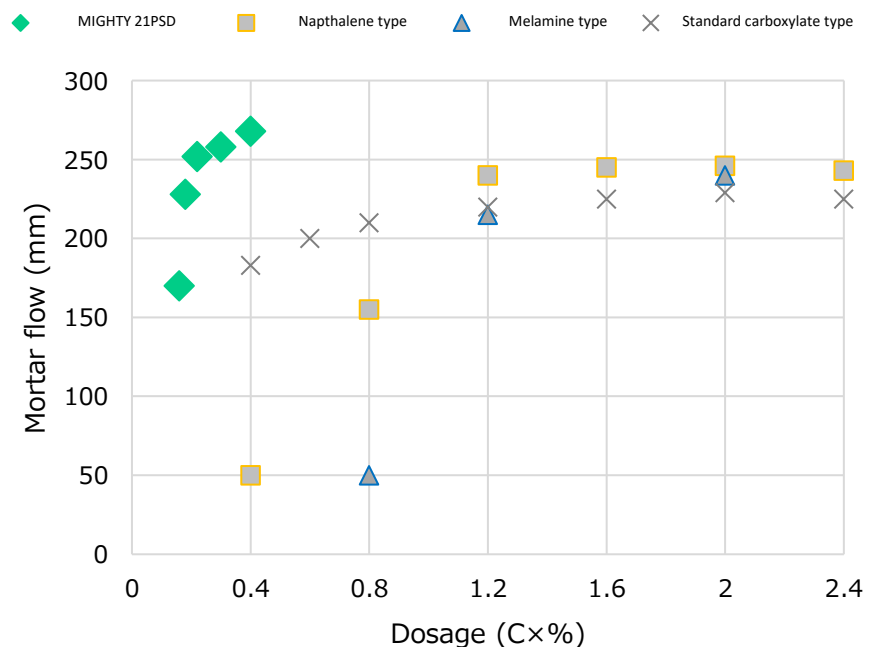
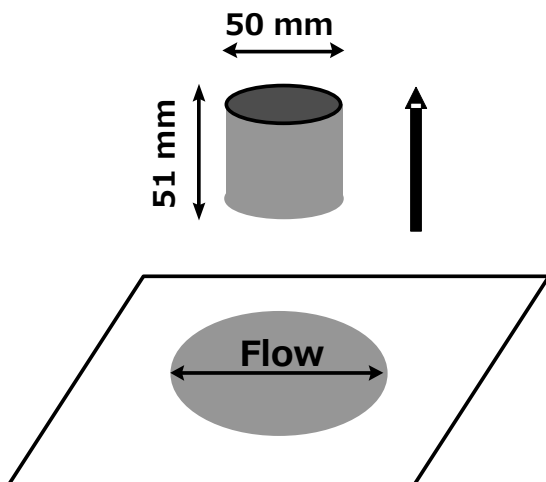
Water (W) : Tap water (168 g; SD=1.00)

<Test method>

Mixing : C+S+MIGHTY 21PSD→62rpm×15s→Water added→62rpm×180s

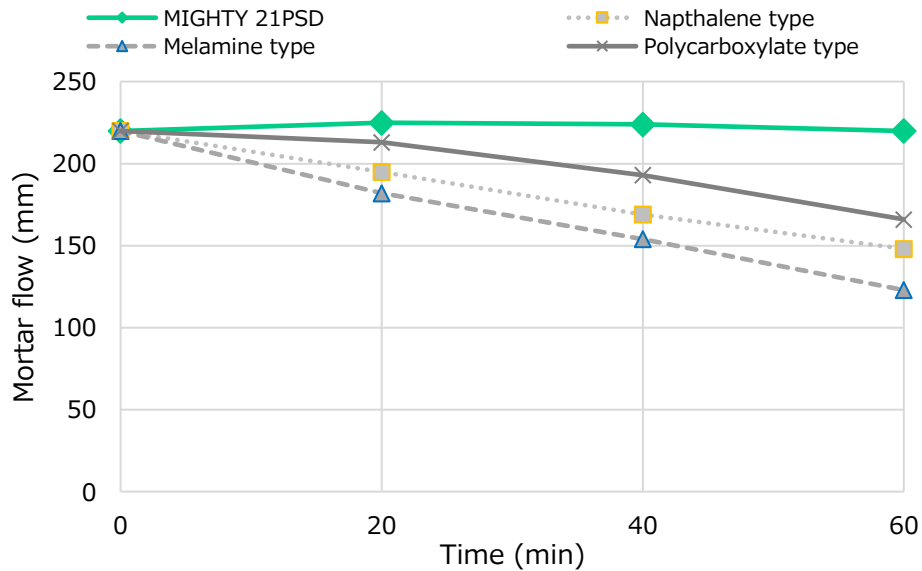
Mortar test : Mortar flow was measured in accordance with the flow test described in JASS 15

M-103 "Self-leveling material quality standards"



<Fluidity retention>

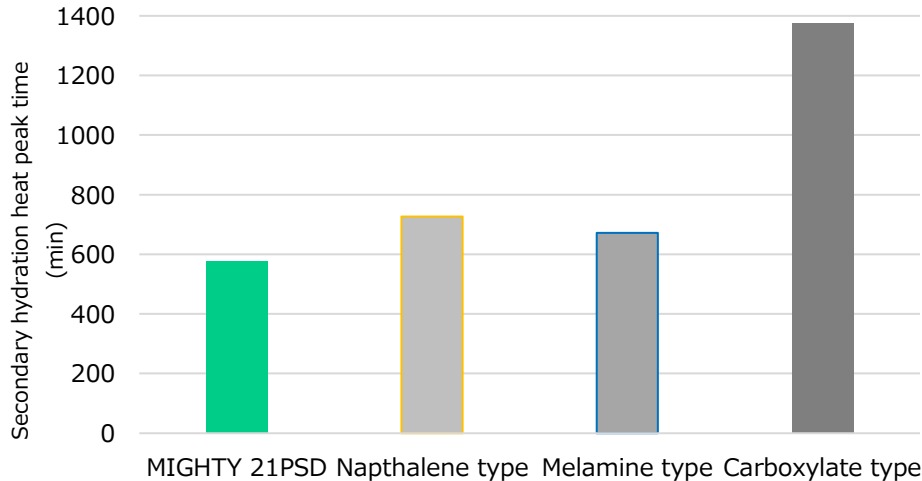
Excellent fluidity retention as compared to standard powder-type water reducers.



<Early hardening>

No setting retardation with outstanding early strength development as compared to standard powder-type water reducers.

(Secondary hydration heat peak is measured with a calorimeter with mortar flow set to 220mm)



Product Information

- Main ingredient : Carboxylate-containing polyether compound (non-formaldehyde)
- Appearance : Pale brown powder
- Solids content : $\geq 95\%$
- Maximum particle diameter : $\leq 0.3\text{mm}$ (Remarks: certified value)
- Recommended dosage (by C%) : 0.05~0.40 (W/C=50~20%)
- Packaging : 15kg kraft bags

The information and recommendations in this publication are to the best of our knowledge reliable. However, nothing herein is to be construed as a warranty or representation. Users should make their own tests to determine the applicability of such information or the suitability of any products for their own particular purpose. For more enquiries, please contact the following.

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