



삼성화재

SAMSUNG

MEICELL®

Self-leveling mortar can form a flat, smooth and strong foundation on the substrate by its own weight, so that other materials can be laid or bonded, and large-area and high-efficiency construction can be carried out.

A significant feature: especially as a backfill or reinforced grout for bulky, reinforced or slits less than 10 mm. In addition to good fluidity, self-leveling mortar must have certain water retention and bonding strength, no bleeding segregation, and low thermal insulation and low temperature rise.

Generally, self-leveling mortar requires better fluidity, but the actual fluidity of the cement slurry is usually only 10 to 12 cm; the self-leveling mortar can be self-compacting, and the initial setting time is long and the final setting time is short.

MEICELL® is a major additive for ready-mixed mortar. Although it is added in a low amount, it can significantly improve the performance of the mortar. It can improve the consistency, workability, bonding performance and water retention performance of the mortar. It plays a very important role in the field of ready-mixed mortar.

The effect of MEICELL® on performance of Cement self-leveling mortar

MEICELL® can effectively improve the water retention of self-leveling mortar and reduce the consistency of mortar; the introduction of HPMC can improve the bonding strength of mortar, but it reduces the compressive strength, flexural strength and fluidity.

MEICELL® can improve the water retention of self-leveling mortar. With the increase of the amount of cellulose ether, the water retention of the mortar is gradually enhanced.

We have developed different formulations according to different construction environments and conditions.

Can help customers better choose the right model Cellulose ether.

DK FINECHEM FINE CHEMICAL

Grade	TYPE	Category	Viscosity (mPa,S)	Moisture	Particle size
Eco	FMD-2924	Hydroxy propyl methyl cellulose	250-450	Max 8%	<125µm: min, 95%
General	FMD-5693	Hydroxy ethyl cellulose	250-450		
Premium	FMD-5793	Hydroxy ethyl cellulose	250-450		

Advantage

●Water Retention

MEICELL® can easily dissolve in cold water. Surface-treated products can be added directly to aqueous systems. This excellent property provides exceptional handling flexibility and control of solubilization rate. MEICELL® products are soluble in cold water, they must be completely dispersed in the water to prevent lumping.

●Enzyme Resistance

MEICELL® products anti-fungi and bacterial property provides excellent viscosity stability for long time. Also, they can provide excellent viscosity stability for a long time period.

●pH Stability

MEICELL® is stable in the range of pH 6.0-10.0. However, the solubility can be affected by acid or alkali.

●Surface Activities

MEICELL® products are often used as surfactants in aqueous solutions to provide emulsification, protective colloid action, and phase stabilization.

●Thickening Effects

MEICELL® increases solution's viscosity, and improves adhesion performance, and suspension system stability is also increased. Generally, the viscosity is highly related to the molecular weight, chemical type, and concentration of the specific MEICELL® product.

●Film Formation

MEICELL® can form clear, tough and flexible film and provide excellent anti-oils and greases properties. Especially in food applications, this property is often used to retain moisture and prevent oil absorption during cooking



General guide Formulation

ITEM	Dosage(kg)	Dosage(%)	Specification
CEMENT	100kg	10%	52.5 or 42.5
Sand40-70 mesh	0-100kg	0-10%	(0.42-0.22 mm)
Sand70-200 mesh	250-350kg	25-35%	(0.22-0.075 mm)
Sand100-200 mesh	150kg	15%	(0.15-0.075 mm)
Anhydrous Gypsum	100kg	10%	
High Alumina cement	150kg	15%	
limestone	120kg	12%	
Redispersible powder	15-40kg	1.5-4.0%	
Fluidizing agent	2kg	0.2%	PCE
Defoamer	2kg	0.2%	
MEICELL® Thickner	1kg	0.1%	FMD-2924 FMD-5693 FMD-5793
Retarder	0.5kg	0.05	
TOTAL	1,000kg	100%	



MEICELL® can effectively improve the water retention of self-leveling mortar and reduce the consistency of mortar; the introduction of HPMC can improve the bonding strength of mortar, but it reduces the compressive strength, flexural strength and fluidity.

MEICELL® can improve the water retention of self-leveling mortar. With the increase of the amount of cellulose ether, the water retention of the mortar is gradually enhanced.

SLCELL[®] KIT

Self-leveling (CEMENT) one pack solution

SLCELL[®] KIT is a kit product that combines various additives(Cellulose ether base) which is necessary for floor self-leveling production.

It is a bag with all the ingredients added for floor Self leveling production, and users can easily produce products by mixing only essential materials in the field.

As primary blending between raw materials is done by advanced technological mixing Technique, Self leveling producer can easily ensure the particle stabilization with basic mixer, which ultimately helps reducing additional mixing cost and eases production process.

Application

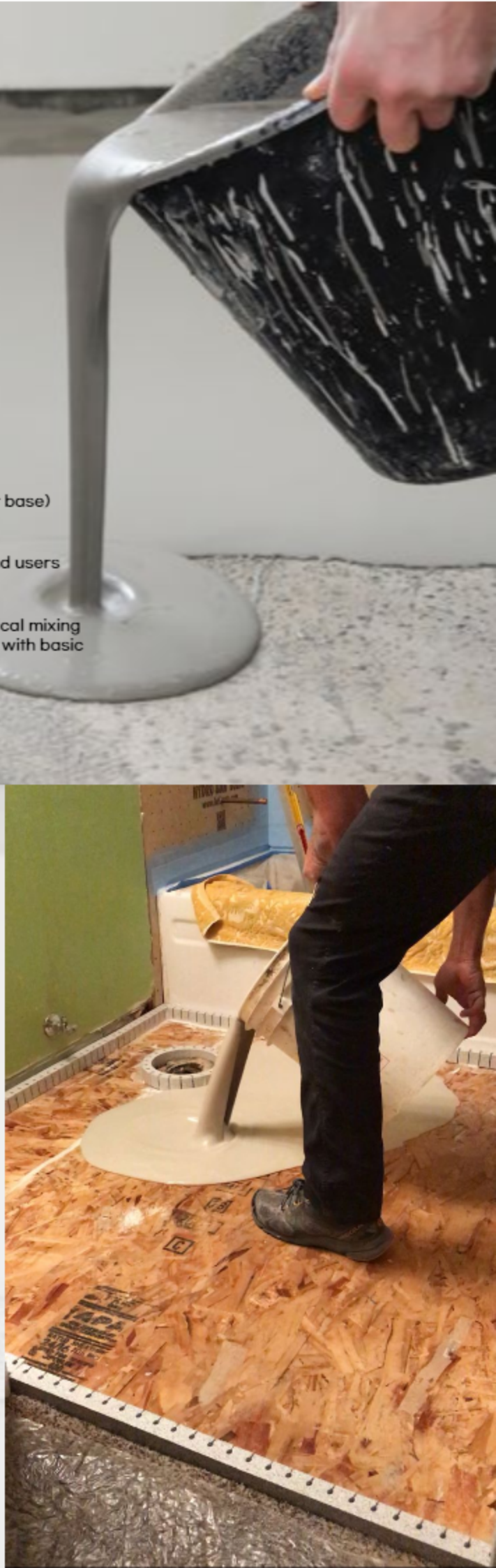
Floor self leveling manufacture

Advantage

- Excellent workability
- Enhance water-retention
- Reducing additional mixing cost
- Particle stabilization

Gradee	TYPE	VISCOSITY RANGE (mPa,S)	MOISTURE (%)	Particle Size
Premium	SLCELL [®] KIT-7150			
General	SLCELL [®] KIT-7250	5-20	MAX 8%	<177µm: min. 95%
Eco	SLCELL [®] KIT-7350			

Quality standard/DKSLKIT/ Brookfield 5% aqua, RV #20°C



SLCELL[®] KIT

Self-leveling
one pack solution

Make it simple
ake it better

SLCELL[®] KIT Cement Formulation guide

ITEM	*Specification	GRADE					
		PREMIUM		GENERAL		ECO	
		1MT batch	Dosage%	1MT batch	Dosage%	1MT batch	Dosage%
Sand	70-140mesh	400-450kg	40-45%	400-450kg	40-45%	400-450kg	40-45%
CEMENT	42.5 or 52.2	230-260kg	23-26%	230-260kg	23-26%	230-260kg	23-26%
CaCO ₃	200-400mesh	100-150kg	10-15%	100-150kg	10-15%	100-150kg	10-15%
Ca(OH ₂)		100kg	10%	100kg	10%	100kg	10%
High Alumnia Cement	42.5	80-100kg	8.0-10.0%	80-100kg	8.0-10.0%	120-150kg	12-15%
Anhydrous Gypsum		60-80kg	6.0-8.0%	30-40kg	3.0-4.0%	40-60kg	4.0-6.0%
SLCELL [®] KIT-7150		21.1kg	2.11%				
SLCELL [®] KIT-7250				15.1kg	1.51%		
SLCELL [®] KIT-7350						14.6kg	1.46%
TOTAL		1,000kg	100%	1,000kg	100%	1,000kg	100%

SELF LEVELING MORTAR STANDARD

Cement based self leveling mortar for ground (JC/T 985-2005)

Compressive strength grade of cement based self leveling mortar for the ground

Grade	C16	C20	C25	C30	C35	C40
28d strength MPa \geq	16	20	25	30	35	40

Flexural strength grade of cement based self-leveling mortar for the ground

Grade	F4	F6	F7	F10
28d strength MPa \geq	4	20	25	30

TEST ITEM

Standard

Fluidity , mm

0Min

29

20Min

31

Bonding strength of concrete slab(28d)

$\geq 1\text{MPa}$

Compressive strength(1d)

$\geq 6\text{MPa}$

Bending strength(1d)

$\geq 2\text{MPa}$

Demension change rate

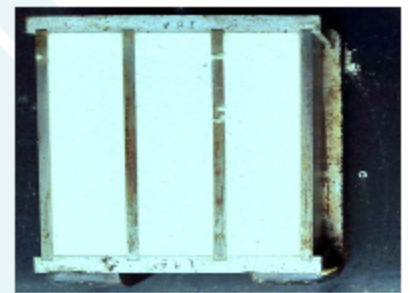
-0.15~+0.15%

TEST STANDARD

Flowability test

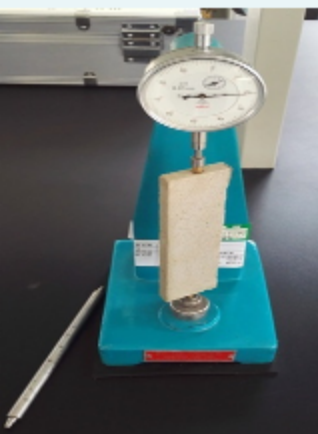


Compressive flexural strength



Shrinkage test

Measurement of shrinkage by using prism specimen.
(The size of the steel mould is long 160mm, wide 20mm, high 40mm, including the measuring head)
Test Shrinkage with micrometer. Tests period are usually more than 28 days.



Bonding strength



Setting time

Using the "VEKA T" Automatic Coagulation Time Tester test.
At regular intervals, 1, 5, 10 or 15 min. drop the steel needle into the new mortar recording the depth of each time the needle dropped into on record paper.
The initial setting and final setting time can be calculated from the paper



Abrasion test

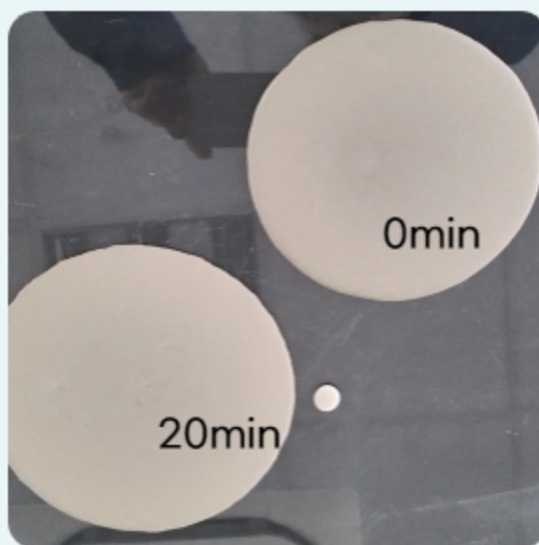
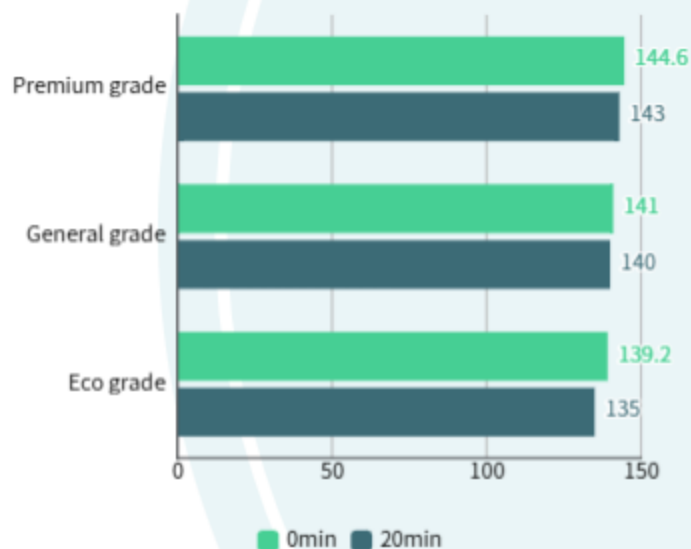


Taber abrasion tester
The sample rotation by abrasion tester under load of sandpaper. Measuring the weight of the material be wear out.

SLCELL[®] KIT

TEST REPORT

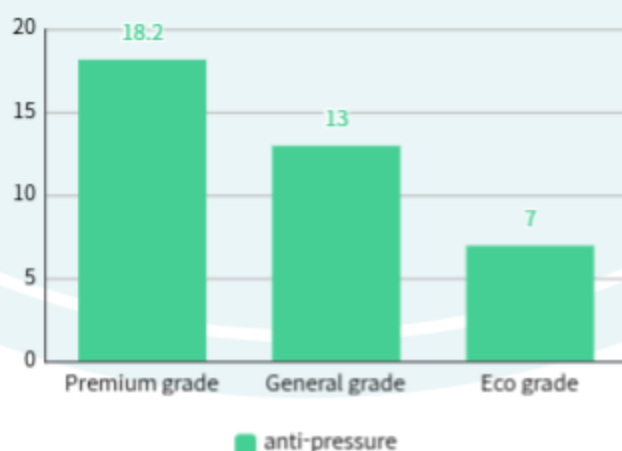
Flowability



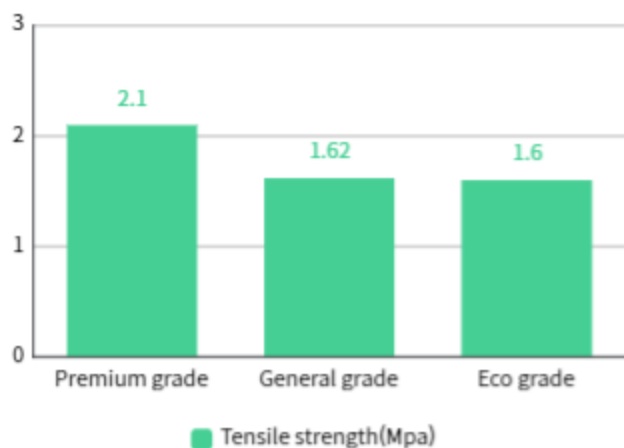
24h Resistance strength



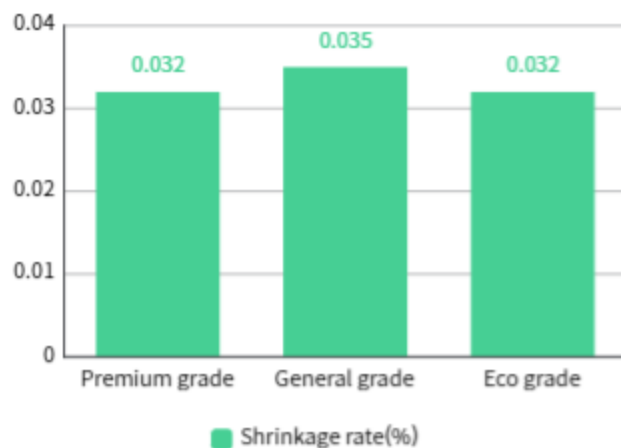
24h anti-pressure strength



Tensile strength (Mpa)



Shrinkage rate (%)



Make it simple
ake it better


SLCELL® KIT

KIT Packing standard
(*DKSLSTPK-35)



Type	Category	Details	N.W	20GP MAX	40HQ MAX
TYPE A	SLCELL® Standard	Polypropylene w oven bag within Polyethylene inner	25kg	12,000kg/ 20Pallet	24,000kg/ 40pallet
TYPE B	SLCELL® Standard	Paper woven ba g within Polyethylene inner	25kg	12,000kg/ 20Pallet	24,000kg/ 40pallet
TYPE C	White bag without manufacture information (formulation NDA)	Polypropylene w oven bag within Polyethylene inner	25kg	12,000kg/ 20Pallet	24,000kg/ 40pallet
TYPE D	MEICELL® Standard	Polypropylene w oven Jumbo ba g within Polyethylene inner	500- 600kg	11,000kg/ 10Pallet	24,000kg/ 20pallet





Over the **20**th years
we DFC(DK FINECHEMICAL)
focus in;
Manufacturing and developing
Cellulose ether.

Make it simple
ake it better

SOUTH KOREA | CHINA | SOUTH AFRICA

DK FINECHEM

dkfinechem.com
dkfinechem.co.kr
sales@dkfinechem.com
c/s: +82-70-4333-0775