Every single gram,
caring for the life with dedication.



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# Hebei Celix Cellulose Co., Ltd

**HPMC**
**HEMC**
**HEC**
**RDP**

# CONTENTS

# COMPANY PROFILE

Hebei Celix Cellulose Co., Ltd， an integrated cellulose manufacturer with in-house R&D, factory, and global sales, advocates the technology drives the development of green materials.

Celix Cellulose is a trusted Chinese manufacturer of advanced cellulose ethers and green construc -tion additives.

Our products include ***HPMC, HEC, MHEC, RDP***, gypsum retarder,strach ether,pp fibers,polyvinyl alcoh -ol powder,polycarboxylate superplasticizer,defoamers, and calcium formate,widely applied in cons -truction, coatings, and daily chemicals.

We will continuously empower global formulators with sustainable cellulose technology.

| 2 | 18+ | 30+ | 30 kt |
|---|---|---|---|
| **Advanced labs** | **Years History** | **Countries Market** | **Yearly Production Capacity** |

## Mission

We focus on the innovation of green cellulose materials, empower customers in multiple fields such as construction, health and care, and food, and provide the world with a safer, more environmentally friendly, and high-performance product experience.

## Vision

Harnessing cellulose technology to enhance everyday life — and building a trusted global brand for sustainable material solutions.

**5C Value**

### Credibility

We believe consistent quality and integrity are non-negotiable. They form the foundation of every trust-based relationship we build globally.

### Consistency

Stable supply, predictable outcomes—that's the Celix standard.

### Creativity

We create space for every idea to be heard, tested, and celebrated.

### Care

Growth matters, but not without care—for employees, communities, and ecosystems.

### Collaboration

We believe progress is built on shared vision and mutual respect.




# Our Expertise Since 2007

### Application Oriented

As an experienced cellulose manufacturer, Celix designs the products with a deep understanding of our end user needs across ***construction, food, health and care***.

Our solutions concentrate on diverse specific applications, providing optimal viscosity, workability, a -nd bonding strength. Those will deliver the advanced cellulose technology where it matters most.

### Global-grade Solutions

Celix offers globally benchmarked cellulose ether products, tested to meet ***ISO, ASTM, and EU Reach standards.***

With a marketing experience across ***30+ countries***, Celix cellulose formulations helped the local indu -strial producers to upgrade their material systems and technology continuously.

### Trusted Chinese Manufacturer

Backed by the modern facilities and automated production lines, Celix could promise the consistent quality, traceability, and cost-efficiency.

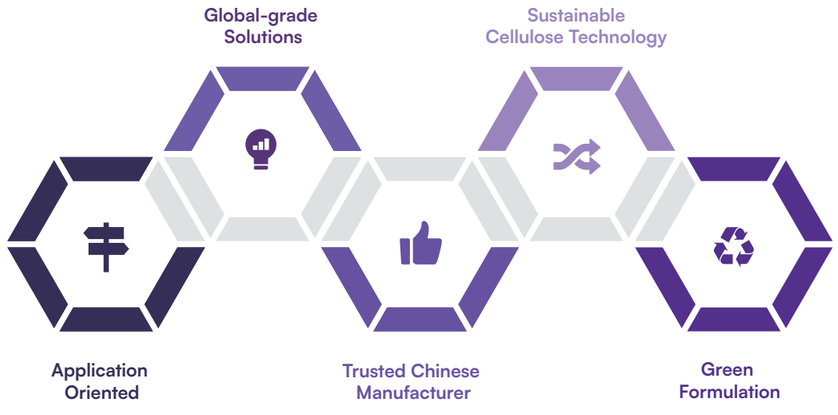
As a trusted cellulose manufacturer in China, the 187 Celix's members integrate R&D, production, and QC to support the yearly ***30000 tons*** of production capacity with confidence.

### Sustainable Cellulose Technology

The HPMC and related products are plant-derived and biodegradable, aligning with global green m -andates. Celix's cellulose technology supports a sustainable development by reducing VOC emissi -ons, enhancing the material lifespan, and contributing to eco-friendly formulations.

### Green Formulation

Whether it's energy-efficient mortar systems or low-carbon building materials, Celix enables formul -ators to lead the green transition. Our full range of cellulose based additives ensures you can creat -e high-performance products with lower environmental impact without compromising on results.



# CELIX FOOTPRINT

**2007**

Our founder Mr. Gu established the factory in Jinzhou, Hebei.

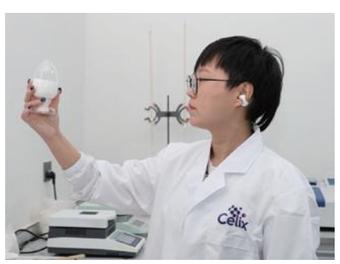
**2010**

The yearly capacity of HPMC reach to 10,000 tons.

**2015**

Completed the sales distributor net of China, included the branches of Hebei, Xinjang, Anhui and Fujian province.

**2019**



Be awarded by the Jingzhou Industrial committee, our application RD Lab of Jinzhou Factory.

**2023**

Launched the environmental instrument of manufacture. The yearly capacity of HPMC reached to 30,000 tons.

It was awarded as a National High-tech Enterprise.

**2025**

Registered CELIX for the own cellulose brand in our global sales.


Our factory was awarded as a science and technology based small and medium sized enterprise in Hebei Province.

# CELIX SUPPLY CHAIN MANAGEMENT

Celix maintains a mature quality inspection process system to ensure consistent product excellence. The process begins with strict raw materials QC to verify the quality of incoming ingredients.

This is followed by thorough finish cellulose ether QC, where all finished products are tested for performance and compliance. Finally, a loading check is performed before shipment to confirm that all standards are met.

Supported by two owned R&D labs, this comprehensive quality system underscores Celix's commitment to delivering reliable and innovative cellulose-based solutions.



Reaction Kettle

Refined Cotton

Crushing &sieving

Propylene Oxide & Methyl Chloride




Liquid Alkali

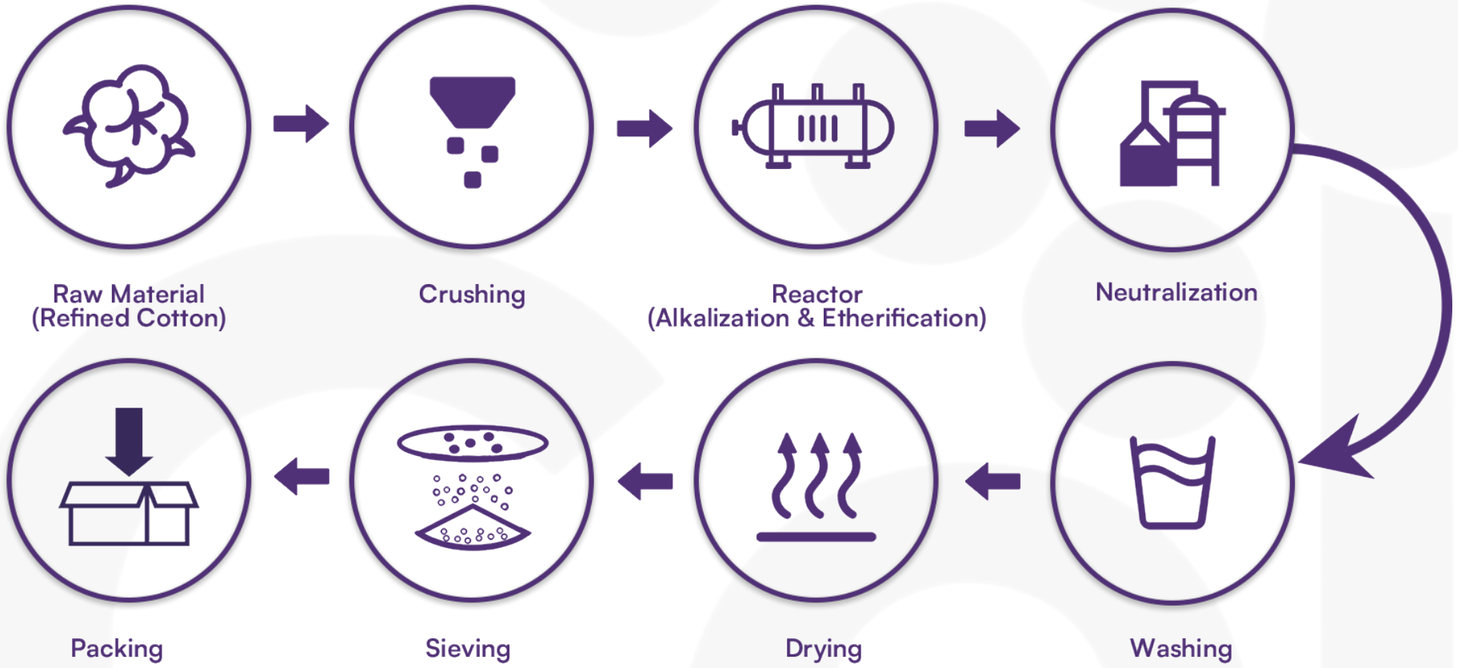

Tile Adhesive Pull-off Tester

# PRODUCTION PROCESS

1.Before production, refined cotton needs to be crushed into powder.

2.Put the refined cotton powder and liquid alkali into the reaction kettle, then get an alkalization reaction. It will release the alkalized cellulose.

3.Put propylene oxide, methyl chloride into the reaction kettle and mix together with the previous alkalized cellulose. The etherification reaction will carrys out.It needs to be carried out under high temperature(about70-90°C)and high pressure for several hours. Then the initial hpmc could be produced.




4.After the etherification reaction process, salts and unreacted alkali may remain in the reactor with the pure HPMC.
These impurities must be removed through washing,neutralization and recovering process.The washing could help to remove the salts. The neutralization canadjust the pH value of HPMCto be neutral.By recovering process,theexcess propylene oxide and methyl chloride are reused by recycling.

5. After washing, the HPMC is still wet and must be dried until its moisture content drops below 5%. Once dried, it forms solid blocks, which are then ground and sieved to produce the final fine HPMC powder.

6.In the finished product workshop, HPMC is carefully packaged by our team to meet each customer's individual specifications and quality standards.

# General Properties

## lubrication

Improves workability and processing of cement and ceramic base extrusions through its lubrication.

## Water retention

Reduces water loss of its formulations when applied to water absorbing surfaces such as a wallboard, etc.

## Solubility

Readily dissolves in cold water to form viscous colloidal solutions with excellent clarity.

## Enzyme resistance

Provides excellent viscosity stability during long-term storage due to its resistance against fungi and bacterial attacks.

## Suspension

Prevents settling of particles and ensures uniform stability in mixtures.

## Film formation

Forms clear, tough and flexible film, which provides excellent barrier properties against oils and greases.

## Air entrainment

Entrains micro air voids into the matrix which improves light handling and mortar yield.

## Opacifying Effect

Increases the hiding power and creates a consistent milky appearance.

## Viscosity

Enhances liquid thickness and stabilizes suspensions and emulsions.

## Thickening effect

Increases viscosity of liquids and enhances the stability of suspension and emulsion systems.

## Particle Size

Provides rapid dissolution with minimal dust for easy handling.

## Dispersibility

Prevents particle agglomeration through steric stabilization ensuring uniform dispersion.

# HPMC

## HYDROXYPROPYL METHYL CELLULOSE


Celix HPMC produced by Celix has good thickening, water retention, suspension, emulsification, adsorption and stability. A variety of models can meet various application needs of different customers.

**HPMC Model: PM-4H,PM-30U,PM-55U, PM-65U,PM-75U**

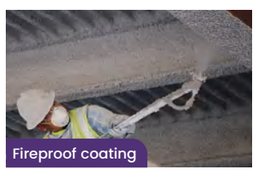
### Product Specifications

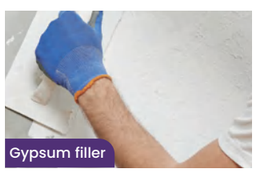
| Specification | Index |
|---|---|
| Exterior | White or light yellowish white |
| Methoxyl,% | 19-24 |
| Hydroxypropyl,% | 7.5-12.0 |
| Gel temperature,℃ | 60-70 |
| Ash content,% | ≤5 |
| Water content,% | ≤5 |
| pH value | 6-8 |
| Viscosity(2%, 20°C, Mpa.s) | 350-75000 |
| Granularity | 98% passed the 80 mesh |
| Density,g/L | 370-390 |

### Applications


Tile adhesive

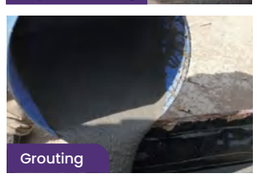

Self-leveling


Fireproof coating


Gypsum filler


Wall putty


Cement adhesive


Grouting


EIFS /ETICS



# SURFACE TREATED HPMC

## MODIFIED HYDROXYPROPYL METHYL CELLULOSE


The surface-treated HPMC produced by Celix has good thickening, dispersibility, stability and high transparency, and is widely used in the production of detergents, fireproof, coatings and wallpaper adhesives.

**Sufaced Treated HPMC Model: PM-Pro-75US**

### Applications

- Laundry detergent
- Dish soap
- Handwashing fluid
- Wallpaper glue
- Glutinous rice glue
- Liquid fire retardant coating


Hand sanitizer


Wall putty


Laundry liquid


Glutinous rice glue


Wallpaper glue


Dish soap

# HEMC
## HYDROXYETHYL METHYL CELLULOSE


Celix HEMC is a cellulose ether that provides higher gel temperature and better heat resistance than HPMC due to its more hydrophilic structure.

**HEMC Model: EM-4H,EM-30U,EM-55U, EM-65U,EM-75U**

### Product Specifications

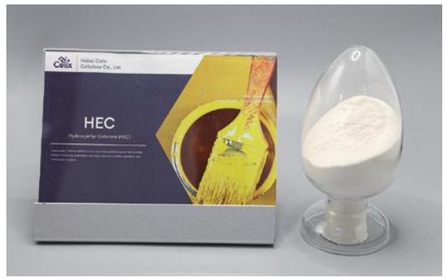
| Specification | Index |
|---|---|
| Exterior | White or light yellow powder |
| Methoxyl,% | 18.0-24.0 |
| Hydroxyethyl,% | 8.0-16.0 |
| pH value | 5.8-8.5 |
| Moisture,% | ≤6 |
| Ash, % | ≤3 |
| Graininess | 100 mesh 98.5% pass, 80 mesh 100% pass |
| Viscosity(2%, 20°C, Mpa.s) | 400-80000 |

### Applications

Masonry mortar
Plastering mortar
Tile adhesive
Cement based putty
EIFS & ETICS
Anti-crack mortar
Paint
Caulk plaster
Gypsum surface mortar
Gypsum base mortar
Machine sprayed plaster
Adhesive mortar



# HEC
## HYDROXYETHYL CELLULOSE




Celix HEC is a non-ionic, highly hydrophilic cellulose ether. It offers excellent thickening, water retention, and suspension properties without gelling upon heating.

**HEC Model: EC-30， EC-90**

### Product Specifications

| Specification | Index |
|---|---|
| Exterior | White or light yellowish white |
| Methoxyl,% | 5 |
| Viscosity(Brookfield, 2%, 20°C, mpa.s) | 400-75000 |
| pH Value | 6-8 |
| Particle Size | 100-120 mesh |

### Applications

Fire retardant coating
Real stone paint
Oil drilling
Interior and exterior wall latex paint
Texture paint
Detergent


Oil drilling


Paint

# VAE RDP

## REDISPERSIBLE POLYMER POWDER


RDP is a kind of powder binder made by spray drying special emulsion (high polymer). Celix RDP is green environmental protection building energy saving, high quality and multi-purpose powder building materials.

**RDP Model: RDP-328,RDP-5030,RDP-7030 RDP-7040,RDP-7045**

### Product Specifications

| Specification | Index | | | | |
|---|---|---|---|---|---|
| Model | 328 | 5030 | 7030 | 7040 | 7045 |
| Exterior | White free flowing powder | | | | |
| Protective colloid | PVA | PVA | PVA | PVA | PVA |
| Solid content, % | 97-99 | 97-99 | 97-99 | 97-99 | 97-99 |
| Ash content, % | 17±2 | 15±2 | 13±2 | 13±2 | 13±2 |
| Bulk density, g/l | 300-500 | 300-500 | 300-500 | 300-500 | 300-500 |
| Particle size, μm | ≥80 | ≥80 | ≥80 | ≥80 | ≥80 |
| Minimum film forming temperature, ℃ | 0-5 | 0-5 | 0-5 | 0-5 | 0-5 |
| Application | General-purpose redispersible powder | tile adhesive wall putty | concrete, mortar, plaster applications | self-leveling | waterproofing with hydrophobic properties |

### Applications




# Applications

## Tile Adhesives

To provide excellent thickening efficiency, long open time and adhesion power.

## EIFS / ETICS

To provide excellent workability and long working time.

## Plasters & Renders

To provide excellent workability and water retention.

## Skim Coat

To provide water retention and workability during processing

# Tile Adhesives

Celix HPMC promises the high performance and excellent working efficiencies for attachment of tiles to various substrates. Being slip resistance and having better open time is the key to better adhesive requirements. These improvements can only be gained through HPMC

## Effects of raw materials

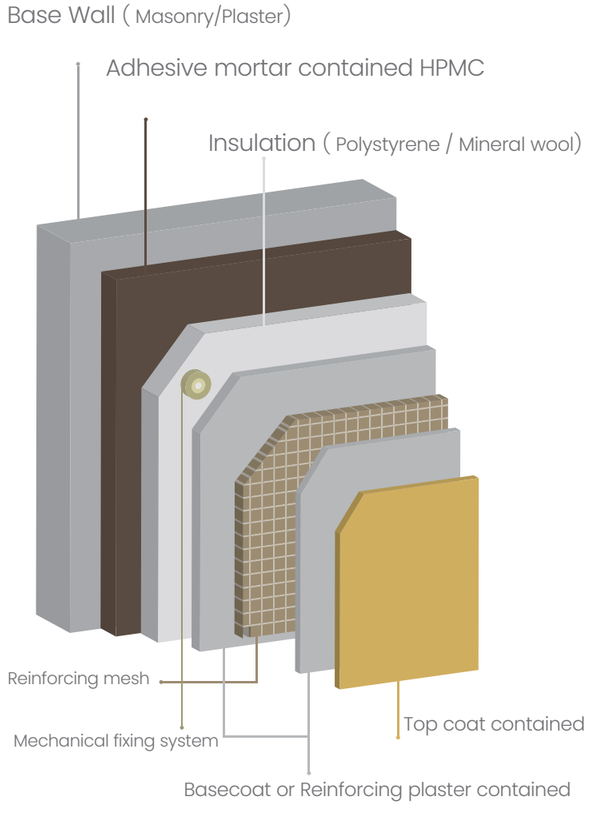
| Raw material | Cement CEM I 42.5R | Quartz sand | Hydrated lime | Redispersible powder | CELIX HPMC |
|---|---|---|---|---|---|
| Content (wt%) | 30 ~ 50 | 40 ~ 70 | 0 ~ 5 | 0 ~ 5 | 0.20 ~ 0.60 |
| Adhesion strength | ● | | ● | ● | ● |
| Viscosity | ● | | ● | | ● |
| Flexibility | | | | ● | |
| Workability | | ● | ● | ● | ● |
| Slip resistance | | | | | ● |
| Water retention | | | | | ● |
| Setting time | ● | | | ● | ● |
| Open time | | | | | ● |
| Correction time | | | | | ● |

| Grade | Model | Viscosity (mPa.s, 2% sol.) | Application | Properties |
|---|---|---|---|---|
| Pure Grade | PM-55U | 45000-60000 | Normal & Economical | Excellent slip resistance & Good open time |
| Pure Grade | PM-65U | 55000-65000 | Normal & Economical | Excellent workability & Good adhesion strength |
| Pure Grade | PM-75U | 65000-75000 | Normal & Economical | Excellent adhesion strength & Good open time |
| Modified Grade | PM-Pro-AS | 45000-75000 | High Performance | Anti Slipping |
| Modified Grade | PM-Pro-AST | 45000-75000 | High Performance | Anti Slipping & Good Open Time |
| Modified Grade | PM-Pro-AS2T | 45000-75000 | High Performance | Excellent Adhesion Strength & Excellent Open Time |
| Modified Grade | PM-Pro-AS2T+ | 45000-75000 | High Performance | Excellent Adhesion Strength & Superior overall performance |

# EIFS
# ETICS

EIFS with Celix HPMC promises even higher performances and excellent working efficiencies on job sites.

Celix HPMC leads to high sag resistance and long embedding time, which are the required key properties of EIFS.




## Effects of raw materials

| Raw material | Cement CEM I 42.5R | Quartz sand | Hydrated lime | Redispersible powder | Hydrophobic agent | Starch ether | CELIX HPMC |
|---|---|---|---|---|---|---|---|
| Content (wt%) | 20 ~ 30 | 60 ~ 70 | 0 ~ 5 | 1.5 ~ 4 | 0.1 ~ 0.3 | 0.01 ~ 0.02 | 0.15 ~ 0.4 |
| Adhesion strength | ● | | ● | ● | | | ● |
| Open time | | | | | | ● | ● |
| Water retention | | | | | | | ● |
| Consistency | ● | | ● | | | ● | ● |
| Crack | ● | | ● | | | | ● |
| Easy trowelling | | ● | ● | ● | | ● | ● |
| Sag resistance | | | | | | ● | ● |
| Stickiness | | | | | | ● | ● |
| Setting time | ● | | | ● | | | ● |
| Waterproof | | | | | ● | | |

EIFS (Exterior Insulation Finishing System)
ETICS (External Thermal Insulation Composite Systems)

| Grade | Model | Viscosity (mPa.s, 2% sol.) | Application | Properties |
|---|---|---|---|---|
| Pure Grade | PM-55U | 45000-60000 | EIFS/ETICS | Excellent slip resistance & Good open time |
| Pure Grade | PM-65U | 55000-65000 | EIFS/ETICS | Excellent workability & Good adhesion strength |
| Pure Grade | PM-75U | 65000-75000 | EIFS/ETICS | Excellent adhesion strength & Good open time |
| Modified Grade | PM-Pro-E20U | 14000-22000 | EIFS/ETICS | Excellent workability & Good sag resistance |
| Modified Grade | PM-Pro-E30U | 25000-35000 | EIFS/ETICS | Excellent slip resistance & Good open time |
| Modified Grade | PM-Pro-E45U | 40000-50000 | EIFS/ETICS | Excellent open time & Less stickiness |
| Modified Grade | EM-Pro-E40U | 35000-45000 | EIFS/ETICS | Good heat resistance, excellent workability |
| Modified Grade | EM-Pro-E55U | 45000-60000 | EIFS/ETICS | Excellent open time, long open time |

# Cement based Render

Cement based render with Celix HPMC ensures superior quality and high efficiencies when applied to job sites.

Have a look at the information on the below to see how you can customize your products to gain a competitive advantage.

## Effects of raw materials

| Raw material | Cement CEM I 42.5R | Limestone sand | Hydrated lime | Air entraining agent | Hydrophobic agent | CELIX HPMC |
|---|---|---|---|---|---|---|
| Content (wt%) | 20 ~ 30 | 60 ~ 70 | 2 ~ 5 | 0.015 ~ 0.03 | 0.1 ~ 0.2 | 0.08 ~ 0.15 |
| Tensile strength | ● | | ● | | | ● |
| Crack resistance | ● | ● | ● | | | ● |
| Workability | | ● | ● | ● | | ● |
| Sag resistance | | | ● | | | ● |
| Water retention | | | ● | | | ● |
| Setting time | ● | | | ● | | ● |
| Working life | | | | | | ● |
| Waterproof | | | | | ● | |

| Grade | Model | Viscosity (mPa.s, 2% sol.) | Application | Properties |
|---|---|---|---|---|
| Pure Grade | PM-55U | 45000-60000 | Cement based Render | Excellent workability & Less retardation of cement hydration |
| Pure Grade | PM-65U | 55000-65000 | Cement based Render | Excellent workability & Good sag resistance |
| Pure Grade | PM-75U | 65000-75000 | Cement based Render | Excellent sagging resistance & Easy workability |

# Gypsum based Plasters

Gypsum based plaster displays different properties based on the type of formulations and resource origins.

That's why special grades of Celix HPMC have been developed to meet the specific requirements of our customers. With our well-equipped, specialized gypsum application laboratories, our broad product offerings, and our experienced team of application experts, we can always assist you in finding the right solutions in order to meet your requirements.

## Effects of raw materials

| Raw material | Gypsum (Hemi hydrate) | Hydrated lime | Limestone flour | Limestone sand or Silica sand | Perlite | Retarder | Air entrainment agent | Starch ether | CELIX HPMC |
|---|---|---|---|---|---|---|---|---|---|
| Content (wt%) | | | | | | | | | |
| Gypsum Machine Plaster | 40~60 | 1~5 | 5~30 | 30~50 | 0~3 | 0.02~0.2 | 0.01~0.03 | 0.01~0.1 | 0.15~0.3 |
| Gypsum Machine Plaster | 74~98 | 1.5~5 | 0~5 | 5~10 | 0.3~3 | 0.02~0.2 | 0.01~0.03 | 0.01~0.1 | 0.15~0.3 |
| Gypsum Hand Plaster | 74~95 | 0.5~5 | - | 5~25 | 0~3 | 0.02~0.2 | 0.01~0.03 | 0.01~0.05 | 0.1~0.2 |
| Gypsum Finishing Plaster | 70~100 | 0~2 | 0~30 | - | - | 0.02~0.2 | 0.01~0.02 | 0.~0.1 | 0.3~0.7 |
| Strength | ● | ● | | | | | | | |
| Workability | | ● | | | ● | | ● | ● | ● |
| Sag resistance | | | | | | | | ● | ● |
| Water retention | ● | | | | | | | | ● |
| Consistency | ● | ● | ● | ● | | | | ● | ● |
| Easy trowelling | | ● | | | | | ● | ● | ● |
| Stickiness | | | | | | | | ● | ● |
| Setting time | ● | | | | | ● | | | ● |
| Working life | | | | | | ● | | | ● |

| Grade | Model | Viscosity (mPa.s, 2% sol.) | Application | Properties |
|---|---|---|---|---|
| Modified Grade | PM-Pro-G1 | 35000-43000 | Hand | High thickening efficiency & Good sag resistance |
| Modified Grade | PM-Pro-G2 | 25000-50000 | Machine | Easy workability & excellent sag resistance |
| Modified Grade | PM-Pro-G3 | 27000-37000 | Finishing | High water retention & Good workability |
| Modified Grade | PM-Pro-G4 | 25000-35000 | Joint Filler / Finishing | Fast dispersing effect & no lump & Easy workability |
| Modified Grade | EM-Pro-GP40U | 35000-45000 | Hand | High thickening efficiency & Good sag resistance |
| Modified Grade | EM-Pro-GP55U | 45000-60000 | Hand | High thickening efficiency & Good sag resistance |

# Skimcoat

Skimcoat with Celix HPMC offersmooth wall surface. It ensures easy workability, long pot life, excellent water retention and more.

## Effects of raw materials

| Raw material | White Cement | Limestone sand | Hydrated lime | Redispersible powder | Hydrophobic agent | CELIX HPMC |
|---|---|---|---|---|---|---|
| Strength | ● | | ● | ● | | ● |
| Workability | | ● | ● | | | |
| Water retention | | | | | | ● |
| Pot life | | | | | | ● |
| Stickiness | | | | | | ● |
| Waterproof | | | | | ● | |

| Grade | Model | Viscosity (mPa.s, 2% sol.) | Application | Properties |
|---|---|---|---|---|
| Pure Grade | PM-55U | 45000-60000 | Skim Coat | Excellent workability and Extended pot life |
| Pure Grade | PM-65U | 55000-65000 | Skim Coat | Excellent workability and Extended pot life |
| Pure Grade | PM-75U | 65000-75000 | Skim Coat | Extended open time and Good workability |
| Modified Grade | PM-Pro-WP | 45000-55000 | Wall Putty | Extended pot life, less lump formation, and Smooth surface |
| Modified Grade | PM-Pro-SWP | 46000-56000 | Wall Putty | Extended pot life, less lump formation, and Smooth surface |
| Modified Grade | EM-Pro-WP40U | 35000-45000 | Wall Putty | Good heat resistance, excellent slip resistance |
| Modified Grade | EM-Pro-WP55U | 45000-60000 | Wall Putty | Excellent open time, excellent slip resistance |

# PACKAGE &SHIPPING

## Packaging Storage

HPMC is a paper-plastic composite package with a net weight of 25 kg. For long-term storage, it should be fireproof and rainproof, and avoid contact with humid environments

## Safety information

While CELIX® is classified as a non-hazardous material, the following should be taken notice of in order to avoid unexpected accidents when handling:
Storage : Dust of CELIX® is capable of exploding. To avoid explosion due to dust, store aware from heats, sparks and fires, and do not expose it directly to high temperatures.
Handling : Solutions of CELIX® are very slippery. To avoid any accidents, sweep the spilled powder and keep dry.
Health : Use appropriate procedures to avoid direct contact such as the skin or eyes and prevent any inhalation of the product.
Additional information : For further information on safety, refer to the Material Safety Data Sheet (MSDS) and/or contact Celix directly with our representatives.

# HONORARY QUALIFICATIONS

Our quality commitment is internationally certified.
Celix maintains ISO 9001 for quality management and ISO 14001 for environmental management, ensuring reliable and sustainable operations.

All products comply with ASTM standards and are verified by SGS for performance and safety.

These certifications demonstrate our dedication to excellence and continuous improvement. At Celix, we transform standards into exceptional value for global customers. Trust our certified quality.


Environmental Management System Certificate


Occupational Health And Safety Managementsystem Certificate


Quality Management System Certificate


Aaa-Level Quality Service And Integrity Unit


Aaa-Level Credit Enterprise


SGS Certification

# OUR FUTURE

The hpmc and related products are plant-derived and biodegr -adable, aligning with global green mandates.

Celix's cellulose technology supports a sustainable development by reducing voc emissions,

enhancing the material lifespan, and contributing to ecofriendly formulations.

Whether it's energy-efficient mortar systems or low-carbon buil -ding materials, celix enables formulators to lead the green tran -sition.

Our full range of cellulose-based additives ensures you can cre -ate high-performance products with lower environmental imp -act without compromising on results.



## CELIX Global Agent Development Policy

As a professional cellulose technology manufacturer with 18 years of expertise, we believe collaboration is the key to creating value for local markets and customers.

Through our Global Sites Policy, Celix aims to establish long-term agent relationships in overseas markets, offering partners not only high-quality HPMC, HEMC, HEC, RDP, and other cellulose additives, but also comprehensive technical and commercial support. We provide training, laboratory testing, and engineering services to help agents address customer needs with confidence.

In addition, Celix offers joint marketing initiatives, resource sharing, and co-branding opportunities to ensure agents have the tools necessary to grow their businesses sustainably. Our strategy focuses on mutual growth—where Celix delivers consistent products and innovation, while our partners strengthen local distribution, customer service, and application expertise.Together, we build global access to cellulose technology that helps industries construct better, cleaner, and more efficient futures.