

# A



## INTRODUCTION OF CELLULOSE ETHER

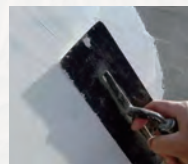
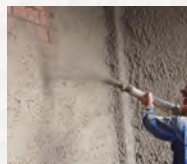
### Application

Cellulose ethers are high molecular polymers made by cellulose through etherification reaction. They are water-soluble and used for thickening, water-holding, lubrication, stabilization in various fields such as construction, ceramic extrusion, textile, paint, oil drilling, food, toothpaste, medicine, papermaking, ink and resin etc.

### MAIN PRODUCTS

Our main products are: Hydroxypropyl Methyl Cellulose(HPMC), Hydroxyethyl Methyl Cellulose( HEMC/MHEC), Re-dispersible Polymer Powder (RDP), Sodium Carboxymethyl Cellulose(CMC), Hydroxyethyl Cellulose(HEC).

#### APPLICATION FIELD

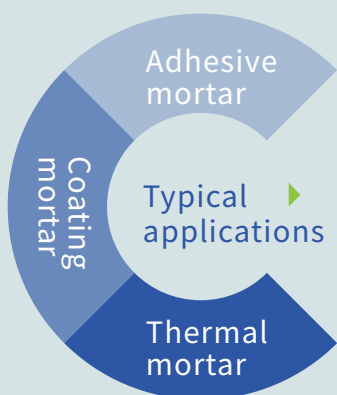


## HPMC—EXTERNAL THERMAL INSULATION COMPOSITE SYSTEMS



### HPMC FOR ETICS(EXTERNAL THERMAL INSULATION COMPOSITE SYSTEMS)

ETICS is an insulation structure composed of insulation layer, protective layer and fixed materials. Its main function is to improve the insulation performance of building envelope and reduce energy consumption. LANDCEL products can give effectively improvement on the water retention, anti-stress cracking, open time, sag resistance, workability of the ETICS mortars.



### ADVANTAGES

- ✔ Enhance the adhesives, especially for EPS/XPS and mineral fiber board.
- ✔ Cohesion prevents cracking.
- ✔ The wear resistance of the surface, prolongs durability.
- ✔ Increase the water retention.
- ✔ Increase the workability.

### TRANSPORT & STORAGE & PACKING

1. 25 kg net Paper-PE compound bag with inner PE film bag.
2. 13 Tons in 20' FCL container or 28 Tons in 40' FCL container.
3. Blank bags or OEM bags are available.

Storage: In dry places, avoid from rain, sunlight, other chemicals. Sealed if the bag is unspent.

### RECOMMENDATION PRODUCTS

PRODUCT GRADE	VISCOSITY NDJ	VISCOSITY BROOKFIELD	ETICS		
			ADHESIVE	COATING	THERMAL
<b>GENERAL GRADE</b>					
MH 75T	75,000	35,000	●●	●●●	
ME 75T	75,000	35,000	●●●	●●●	
MH 100T	100,000	45,000	●●●	●●●	
ME 100T	100,000	45,000	●●●	●●●	
MH 150T	150,000	55,000	●●●		●●●
ME 150T	150,000	55,000			●●●
MH 200T	200,000	65,000	●●		●●●
ME 200T	200,000	65,000			●●●
<b>MODIFIED GRADE</b>					
LD1210	125,000	50,000	●●	●●	●●
LD1516	150,000	45,000	●●●	●●●	
S2118	175,000	60,000			●●●
M3110	75,000	40,000	●●	●●	
M3228	175,000	60,000			●●●

## HPMC—TILE ADHESIVE AND TILE GROUTS

### HPMC FOR TILE ADHESIVE AND TILE GROUTS

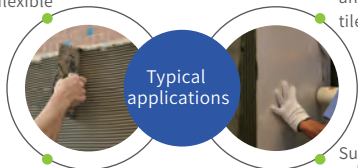
#### TILE ADHESIVE

The tile adhesive is physically mixed by cement, sand and accessories, and it is formulated differently in different countries or regions. There are various types of tiles and substrates, also the environment and trowel methods differ from one place to another, thus the performance requirements of cement tile adhesive are different.

Landcel has a wide range of products to meet the performance requirements of tile adhesive in different applications, as shown in the following advantages:

Greatly improve the water retention capacity, inhibit the large loss of moisture to the highly water-absorbing ceramic tile and substrate, so that there is enough water for hardening condition of cement, the bond strength is increased and the slip resistance of mortar is further improved.	Excellent open time and adjustable time for workers to adjust the mistakes of placing wrong ceramic.
No matter be thickly stuck or thin stuck, it can develop a good bond strength, reduce shrinkage rate, and it won't cause ceramic tile craze and fall off by stress.	The mortar is endowed with better plasticity and flexibility, which makes construction easier and work more efficiently.

High quality flexible tile adhesive



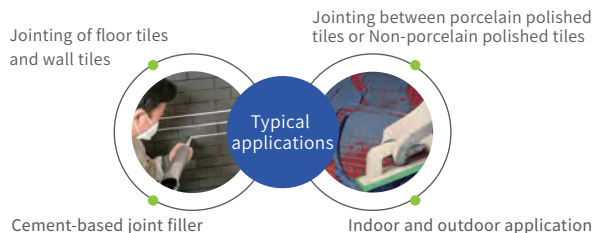
Adhesive for floor and wall tile

Used for various glass and non-glass ceramic tile adhesive

Suitable for mineral substrate and non-mineral substrate

#### TILE GROUTS

Landcel HPMC can be used in different materials such as ceramic tile, mosaic, marble and other materials.



Cement-based joint filler

Indoor and outdoor application

#### ADVANTAGES

- Improve the adhesion between ceramic tile sealant and ceramic tile edge
- Improve the flexibility and deformation ability of caulking agent
- Give caulking agent excellent hydrophobicity to improve water resistance and stain resistance
- Salt-petering reduction

#### TRANSPORT & STORAGE & PACKING

- 25 kg net Paper-PE compound bag with inner PE film bag.
- 13 Tons in 20' FCL container or 28 Tons in 40' FCL container.
- Blank bags or OEM bags are available.

Storage: In dry places, avoid from rain, sunlight, other chemicals. Sealed if the bag is unspent.

#### RECOMMENDATION PRODUCTS

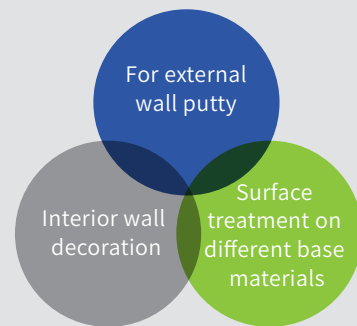
PRODUCT GRADE	VISCOSITY NDJ	VISCOSITY BROOKFIELD	TILE ADHESIVE	
			ECONOMIC	PREMIER
<b>GENERAL GRADE</b>				
MH 75T	75,000	35,000	●●	●●
ME 75T	75,000	35,000		●●●
MH 100T	100,000	45,000	●●●	
ME 100T	100,000	45,000		●●●
MH 150T	150,000	55,000	●●●	
ME 150T	150,000	55,000	●●●	
MH 200T	200,000	65,000	●●●	●●
ME 200T	200,000	65,000	●●●	
<b>MODIFIED GRADE</b>				
LD1210	125,000	50,000	●●●	
LD1516	100,000	45,000		●●●
S2118	175,000	60,000		●●
S2166	70,000	30,000	●●	
M3110	75,000	40,000		●●

## HPMC—SKIM COAT

### HPMC FOR SKIM COAT

Skim coat (also named by Wall Putty) is a decorative and functional trowelling plaster material for interior or external wall construction. Its function is to remove uneven defects on the surface of the base materials of wall, and eliminate the stress between different coating layers.

#### APPLICATION



#### ADVANTAGE

Enhances the adhesion of putty to various base materials

Improve water retention, consistency and stability of putty

Gives good workability to putty

#### TRANSPORT & STORAGE & PACKING

1. 25 kg net Paper-PE compound bag with inner PE film bag.
2. 13 Tons in 20' FCL container or 28 Tons in 40' FCL container.
3. Blank bags or OEM bags are available.

Storage: In dry places, avoid from rain, sunlight, other chemicals. Sealed if the bag is unspent.



#### RECOMMENDATION PRODUCTS

PRODUCT GRADE	VISCOSITY NDJ	VISCOSITY BROOKFIELD	SKIM COAT		
			LIME BASED	GYPSUM BASED	CEMENT BASED
<b>GENERAL GRADE</b>					
MH 75T	75,000	35,000		●●	
ME 75T	75,000	35,000		●●	
MH 100T	100,000	45,000	●●●		●●●
ME 100T	100,000	45,000	●●●		●●●
<b>MODIFIED GRADE</b>					
LD1516	100,000	45,000	●●		●●
S2128	75,000	40,000	●●●	●●●	●●●
M3110	75,000	40,000	●●●	●●●	●●●
M3116	70,000	30,000	●●	●●	●●●
M3228	175,000	60,000		●●●	

## HPMC—GYPSUM PLASTER

### HPMC FOR GYPSUM PLASTER



### RECOMMENDATION PRODUCTS

Landcel HPMC can significantly improve the construction performance of gypsum based products.

PRODUCT GRADE	VISCOSITY NDJ	VISCOSITY BROOKFIELD	GYPSUM BASED MORTAR	
			HANDY PLASTER	SPRAYED GYPSUM RENDER
<b>GENERAL GRADE</b>				
MH 40T	40,000	20,000	●●	●●●
ME 75T	75,000	35,000	●●●	
MH 100T	100,000	45,000	●●●	
MH 150T	150,000	55,000	●●●	
ME 150T	150,000	55,000	●●●	
<b>MODIFIED GRADE</b>				
LD1516	100,000	45,000	●●	
S2118	175,000	60,000	●●●	
S2128	75,000	40,000	●●	
S2166	70,000	30,000	●●	●●●



### TRANSPORT & STORAGE & PACKING

1. 25 kg net Paper-PE compound bag with inner PE film bag.
2. 13 Tons in 20' FCL container or 28 Tons in 40' FCL container.
3. Blank bags or OEM bags are available.

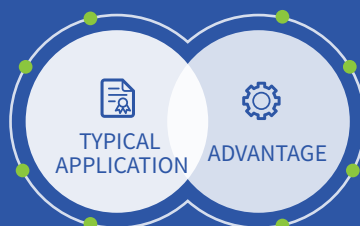


Storage: In dry places, avoid from rain, sunlight, other chemicals.  
Sealed if the bag is unspent.



### TYPICAL APPLICATION & ADVANTAGE

- Handy gypsum plaster
- Sprayed gypsum render
- Interior finishing / Skim coat plaster



- Increasing the thelloxotropy
- Improving fluidity and pumpability
- Extending the open time
- Enhancing the mechanical strength

## HPMC — LEVELING MATERIALS

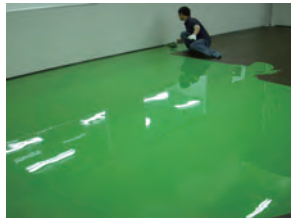
### HPMC FOR SELF-LEVELING MATERIALS

Landcel products gives the rheology and workability of the full range of flooring formulations. Improves ease of on-site application and ensuring exceptionally smooth, defect-free surfaces.

#### Application ▶



Industrial and residential flooring



Cement based self-leveling materials and screeds



Gypsum based floorings

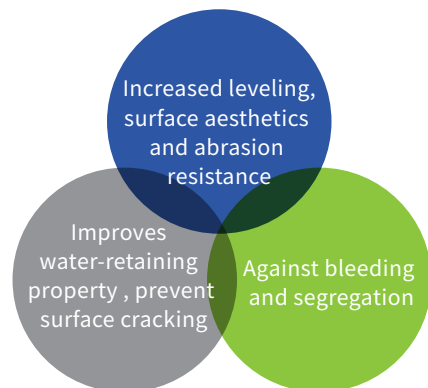


Pumpable and hand-applied self-leveling materials

#### RECOMMENDATION PRODUCTS ▶

PRODUCT GRADE	VISCOSITY(BROOKFIELD)
MH 400	400

#### ADVANTAGE ▶



#### TRANSPORT & STORAGE & PACKING ▶

1. 25 kg net Paper-PE compound bag with inner PE film bag.
2. 13 Tons in 20' FCL container or 28 Tons in 40' FCL container.
3. Blank bags or OEM bags are available.

Storage: In dry places, avoid from rain, sunlight, other chemicals. Sealed if the bag is unspent.



## RE-DISPERSIBLE POLYMER POWDER

### RDP / VAE

The re-dispersible polymer powder is a white powdery polymer made of emulsion by spray drying. In contact with water, the emulsion will disperse quickly and have the same film forming characteristics as the original emulsion. This film has high weather resistance, high toughness and high adhesion to different substrates. Its ingredients are: polymer (mostly based on vinyl acetate-ethylene copolymer (VAE)), additives, protective colloid (polyvinyl alcohol) and anti-caking agent.

#### ADVANTAGE



Excellent waterproof performance



Increase the bond strength of the materials



After dispersing into a film, the polymer resin is distributed throughout the mortar system, and gradually plays a high bonding role over time to increase the cohesion of the mortar



Increase the elasticity of mortar and make it open for a long time



So that the mortar has excellent alkali resistance



Make the flexible crack resistant mortar more flexible



#### APPLICATION

- Tile adhesives or tile grouts
- ETICS mortar
- Self-leveling cement mortar
- Internal and external flexible wall putty
- Flexible crack resistant mortar
- ETICS
- Powder coating
- Polymer mortar products which has high requirement on flexibility



#### TRANSPORT & STORAGE & PACKING

1. 25 kg net Paper-PE compound bag with inner PE film bag.
2. 13 Tons in 20' FCL container or 28 Tons in 40' FCL container.
3. Blank bags or OEM bags are available.

Storage: In dry places, avoid from rain, sunlight, other chemicals. Sealed if the bag is unspent.

## HYDROXYETHYL METHYL CELLULOSE

### HEMC

Hydroxyethyl methyl cellulose is a kind of non-ionic polymer, which is made by adding methyl chloride or ethylene oxide to refined cotton under alkaline environment and introducing methoxy and hydroxyethyl into the molecular chain of cellulose. It's a white or white-off powder, easy to dissolve in cold water but not in hot water. The solution presents strong pseudoplasticity and provides high shear viscosity.

Landcel HEMC has excellent water retention, thickening, dispersion and mildew resistance. Its water retention performance is stronger than HPMC. It's viscosity stability, dispersion and anti-mold performance is better than HPMC. It is mainly used as dispersant, adhesive, protective colloid, thickener and stabilizer in coatings, building materials and daily cosmetics and detergents.



#### TRANSPORT & STORAGE & PACKING



#### ADVANTAGE



1. 25 kg net Paper-PE compound bag with inner PE film bag.
2. 13 Tons in 20' FCL container or 28 Tons in 40' FCL container.
3. Blank bags or OEM bags are available.

Storage: In dry places, avoid from rain, sunlight, other chemicals.  
Sealed if the bag is unspent.

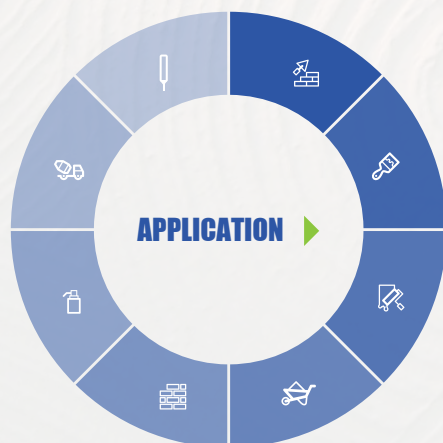


Excellent water retention and adhesion

Reducing shrinkage rate and prevent cracking on self-leveling materials

It has a high tolerance for dissolved electrolytes or salts and remains stable in pH variations

Act as a lubricant, it can enhance the flow and dispersion of productions



- Paint for building
- Mortar for EIFS
- Tile adhesive
- Gypsum Based Mortar
- Cement Based Putty
- Spray mortar
- Skim coat
- Crack filler/ Tile grout
- Repair Mortar
- Masonry mortar



## HYDROXYETHYL CELLULOSE

### HEC

HEC is a white or light yellow powder, non-toxic, tasteless, can be quickly dissolved into hot or cool water, insoluble in general organic solvent, with excellent character of thickening, dispersing, emulsifying, adhesion, stabilizing, water retention and film forming. Also can be used as a protective colloid in some products. It can be widely used in oil drilling, coatings, food, textile, building and macromolecule polymerization, etc.



### APPLICATION ►



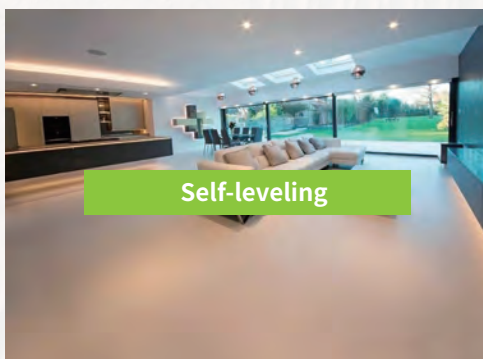
- Used as thickener and dehydrating agent to improve oil recovery.
- Improves permeability and drilling stability.
- Reduce the friction of pore pressure mud.



- Improves thickening and leveling properties.
- Improves sag and splash resistance.



- It is an Effective film-forming agent, adhesive, thickener, stabilizer and dispersant.
- It can be used in liquid and solid detergents.



- As an effective thickener and binder for cement mortar.
- Improves the fluidity and construction performance of mortar.
- Prolong the water evaporation time.



### TRANSPORT & STORAGE & PACKING ►

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2. 13 Tons in 20' FCL container or 28 Tons in 40' FCL container.
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## SODIUM CARBOXYMETHYL CELLULOSE

### CMC

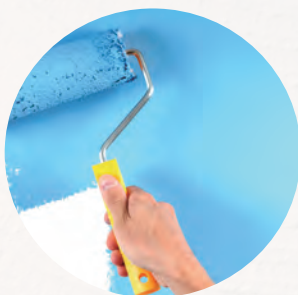
Carboxymethylcellulose (CMC) is obtained after carboxymethylation of cellulose. The aqueous solution of CMC has the functions of thickening, film formation, adhesion, moisture retention, colloid protection, emulsification and suspension. Widely used in petroleum, food, construction, medicine, textile and paper industries. CMC is one of the most important cellulose ethers.



### APPLICATION



Used for Petroleum



Used for Coatings



Used for Food



Used for Ceramics



### ADVANTAGE

#### Used for Petroleum

It is an efficient fluid loss reducer with high water loss control capacity. Good temperature resistance and excellent salt resistance. Has good thixotropy.

#### Used for coatings

It has good dispersion, mold resistance and heat resistance. Good transparency, fast dissolution and good viscosity stability.

#### Used for Food

It has many functions such as thickening, emulsification, suspension, water retention, toughness enhancement, puffing and preservation. It can improve the taste, improve the grade and quality of the product, and extend the shelf life.

#### Used for Ceramics

It has the characteristics of good fluidity, fine particle size, high transparency, fast dissolution and salt resistance. It can be used as an excipient, plasticizer, enhancer, glaze slurry and stabilizer for printing glaze.



### TRANSPORT & STORAGE & PACKING

1. 25 kg net Paper-PE compound bag with inner PE film bag.
2. 13 Tons in 20' FCL container or 28 Tons in 40' FCL container.
3. Blank bags or OEM bags are available.

Storage: In dry places, avoid from rain, sunlight, other chemicals. Sealed if the bag is unspent.

## RECOMMENDATION ON APPLICATION OF CELLULOSE ETHER

Product grade	Visco. NDJ	Visco. Brookfield	TILE ADHESIVE		TILE GROUT	ETICS			SKIM COAT			GYPSUM MORTAR		Self-leveling	Decorating	Waterproof	
			Economic	Premier		Adhesive	Coating	Thermal	Lime based	Gypsum based	Cement based	Handy plaster	Sprayed render				
General grade																	
MH 400	400	400												●●●			
40H	4,000	4,000			●●●												
MH 40T	40,000	20,000											●●		●●	●●	●●
MH 75T	75,000	35,000	●●●	●●		●●	●●	●●									
MH 100T	100,000	45,000	●●●	●●		●●	●●	●●	●●	●●	●●	●●	●●				
MH 150T	150,000	55,000	●●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●		●●	●●	
MH 200T	200,000	65,000	●●●	●●	●●	●●	●●	●●	●●	●●	●●	●●	●●				
Modified grade																	
LD1210	125,000	50,000	●●●			●●	●●	●●									
LD1516	100,000	45,000	●●●	●●		●●	●●	●●	●●	●●	●●	●●	●●				
LD1822	8,000	8,000			●●●												●●
S2118	175,000	60,000		●●				●●	●●	●●	●●	●●	●●				
S2128	75,000	40,000							●●	●●	●●	●●	●●				
S2166	70,000	30,000	●●														
M3110	75,000	40,000		●●		●●	●●	●●	●●	●●	●●	●●	●●				
M3116	70,000	30,000						●●	●●	●●	●●	●●	●●				
M3228	175,000	60,000						●●	●●	●●	●●	●●	●●				
MHEC/HEMC																	
ME 75T	75,000	35,000		●●●		●●	●●	●●	●●	●●	●●	●●	●●				
ME 100T	100,000	45,000		●●●		●●	●●	●●	●●	●●	●●	●●	●●				
ME 150T	150,000	55,000	●●●					●●	●●	●●	●●	●●	●●				
ME 200T	200,000	65,000	●●●					●●	●●	●●	●●	●●	●●				

●● Normal type    ●●● The optimal type

MH: Hydroxypropyl Methyl Cellulose    ME: Hydroxyethyl Methyl Cellulose

# 产品规格推荐表

产品规格	NDJ粘度*	布氏粘度	瓷砖粘结剂		外墙保温砂浆			腻子			石膏基砂浆		水泥基自流平	装饰砂浆 硅藻泥	防水砂浆
			经济型	高端型	粘结砂浆	抹面砂浆	保温砂浆	灰钙基腻子	石膏基腻子	水泥基腻子	手工抹灰石膏	机喷石膏			
通用型产品															
MH 400	400	400													
40H	4,000	4,000													
MH 40T	40,000	20,000		●●●											
MH 75T	75,000	35,000		●●		●●●				●●					
MH 100T	100,000	45,000		●●		●●●					●●●				
MH 150T	150,000	55,000		●●		●●●					●●●				
MH 200T	200,000	65,000		●●		●●					●●●				
改性产品															
LD1210	125,000	50,000		●●●		●●									
LD1516	100,000	45,000		●●●		●●●					●●				
LD1822	8,000	8,000		●●●											
S2118	175,000	60,000		●●											
S2128	75,000	40,000									●●●				
S2166	70,000	30,000		●●							●●				
M3110	75,000	40,000		●●		●●									
M3116	70,000	30,000									●●				
M3228	175,000	60,000									●●●				
MHEC/HEMC															
ME 75T	75,000	35,000		●●●		●●●									
ME 100T	100,000	45,000		●●●		●●●									
ME 150T	150,000	55,000		●●●											
ME 200T	200,000	65,000		●●●											

●● 一般推荐型号  
 ●●● 最佳推荐型号  
 MH:羟丙基甲基纤维素  
 ME:羟乙基甲基纤维素



# 40,000 tons

QUALITY FIRST CUSTOMER FIRST

REACH

ISO9001

ISO14001

ISO45001

## COMPANY PROFILE

Hebei Landcel Cellulose Tech Co., Ltd. is a manufacturer of non-ionic cellulose ethers, focusing on supplying comprehensive product solutions to the global Construction ingredients, Painting & Coating materials etc.

The factory, Hebei Sheng Laiou Chemical Technology Co., Ltd., is located in Shenze county, Shijiazhuang city, Hebei Province, China. At the beginning of 2018, for adopting the requirements of market and the company development planning, we invested 22 millions USD on the phase-III production line. At the end of 2019, the yearly output can reach 40,000 metric tons.

To supply our best products and services to the global clients, we registered a brand, **LANDCEL®**, and established a new test laboratory and application research centre at the end of 2018.

Based on rich production experiences, professional R&D, consistent quality control system, **LANDCEL®** always abide by "Quality first, Customer first" to develop win-win relationships with our clients and benefit our partners with long terms.

# LANDCEL

CREATE A HEALTHY AND SUSTAINABLE FUTURE FOR YOU



PROSPECT

CREATE A WORLD-RENOWNED BRAND IN CELLULOSE ETHER INDUSTRY



PHILOSOPHY

RESPONSIBILITY FOR SOCIETY SEEKS HAPPINESS FOR STAFFS



SPIRIT

HONEST AND SINCERE PRACTICAL AND EFFECTIVE PIONEERING AND INNOVATIVE

## COMPANY ADVANTAGES

### TECHNOLOGY ADVANTAGES 01

12 years of experience in Developing, Producing and Quality control.



### PRODUCTS ADVANTAGES 02

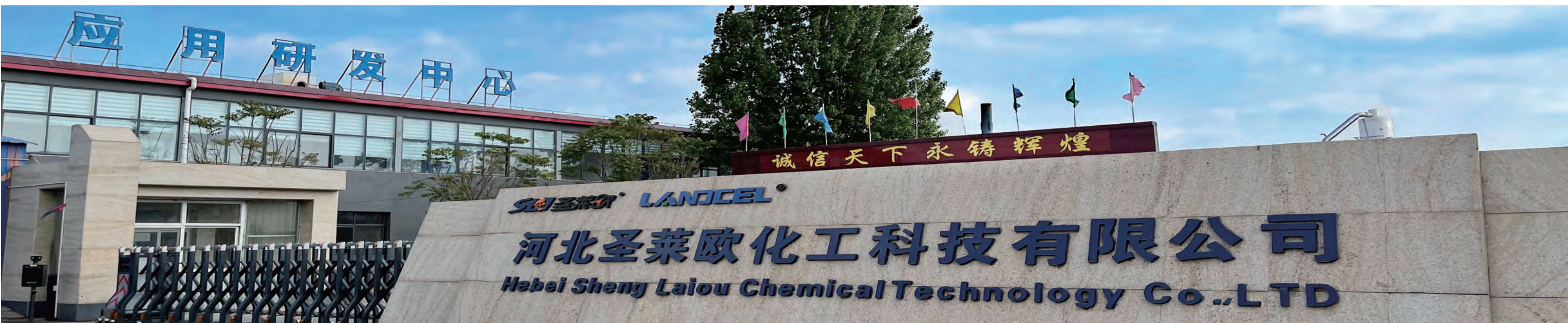
Stable performance and competitive price

### 03 OUR SERVICES

Yearly output is 40,000 tons, punctual delivery can be easily guaranteed. Technician team with rich experiences provide application service on variety files.



www.landcel.com | **LANDCEL**

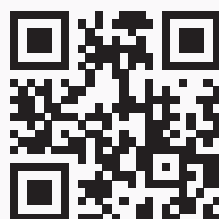


**LAND YOUR HEALTHY AND  
SUSTAINABLE FUTURE**

**CREATE A WORLD-RENOWNED BRAND IN  
CELLULOSE ETHER INDUSTRY**



PROFESSIONAL/HONEST/  
EFFICIENT/SUSTAINABLE



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HEBEI LANDCEL CELLULOSE TECH CO., LTD.

河北兰德赛纤维素科技有限公司