

The logo for Zeicel, featuring the word "Zeicel" in a bold, blue, sans-serif font. The letter "Z" is white with a blue outline, while the remaining letters "eicel" are solid blue. The logo is centered on the page.

Zeicel

Cellulose Ether



zeicel.com

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Our company

Zeicel Co, Ltd. is a professional company specialized in cellulose ether production combining scientific research, development sales and exporting business.

Mission

We aim to fulfill the different requirements of our customers, assisting them to increase efficiency, reduce cost and improve quality products & service. This is achieved by teamwork, a process of continuous improvement and by putting quality and service firmly at the forefront of everything we do.

Product

We concentrate on cellulose ethers and HPMC, HEMC ,RDP and HEC Which are the main products producing by us .

Coating

Product property and application

Cellulose for paint can disperse in water easily, has the properties of good color development, good thickening, good emulsification and good biological stability.

Technical Parameters

Product	Grade	Viscosity*	Properties
HEC/Normal Hec	HEC Z6B	4500 - 6500 [‡]	1- Excellent anti-enzyme 2- excellent color development
	HEC Z30B	1500 - 2400	
	HEC Z50B	2500 - 3300	
	HEC Z100B	3400 - 5500	
HEC/High viscosity Hec	HEC Z150B	5600 - 7000	1-High viscosity, good thickening 2-Good anti-enzyme
	HEC Z200B	7000 -8000	
HEC / Economic HEC	ZHQ 30	1500 - 2400	1- Very good color development 2- Good anti-enzyme 3- Good hydrophilicity 4- Good workability
	ZHQ 50	2500 - 3300	
	ZHQ 100	3400 - 5500	
	ZHQ 150	5600 -7000	
MC / Modified MC	ZUR 30	15000 [‡]	1- Special etherification 2- Good color development 3- Good Workability
	ZUR 50	25000 [‡]	
	ZUR 100	45000 [‡]	
	ZUR 150	60000 [‡]	
HPMC / Paint remover HPMC	ZPM4	4000 [‡]	1- Dichloromethane and alcohol system 2- Good swelling and stable
	ZPM6	5500 [‡]	

*: Brookfield, LV, 1% Content in water, 25C°. mpa.s.

1*: Brookfield, LV, 2% Content in water, 25C°. mpa.s.

2*: Brookfield, RV, 2% Content in water, 20C°. mpa.s.



Tile adhesive

Product property and application

Zeicel has developed cellulose ether products suitable for different needs according to the standard requirements of ceramic tile adhesive in EN12004 & GB / T547 and the differences of raw materials in various regions. Product features: Good water retention , Good constructability , Long opening hours , Good anti slip , Long adjustment time , High adhesion.

Product	Grade		Viscosity*		Properties
	HPMC	HEMC	NDJ	Brookfield	
Normal	ZK60	ZEM60	60000	30000	1- Good water retention
	ZK80	ZEM80	80000	40000	2- Good workability
	ZK100	ZEM100	100000	50000	3- General purpose
	ZK150	ZEM150	150000	65000	
Modified	ZK40X	ZEM40X	40000	20000	1- Long open time
	ZK60X	ZEM60X	60000	30000	2- Good water retention
	ZK80X	ZEM80X	80000	40000	3- Good adhesion strength
	ZK100X	ZEM100X	100000	50000	4- Good slip resistance
	ZK40LX	ZEM40LX	40000	20000	1- Excellent slip resistance
	ZK60LX	ZEM60LX	60000	30000	2- Long open time
	ZK80LX	ZEM80LX	80000	40000	3- Good water retention
	ZK100LX	ZEM100LX	100000	50000	4- Good adhesion strength

*: 2% Content in water, 20 C°. mpa.s.





Gypsum

based product

Product property and application

Adhesive mortar: Excellent water retention; excellent wet adhesion; Good workability less lumping.

Plaster mortar: Good workability, excellent anti-slip; High water demand; Good water retention
Grout: Excellent water retention; Good workability; less lumping.

Technical Parameters

Product	Grade		Viscosity*		Properties
	HPMC	HEMC	NDJ	Brookfield	
Normal	ZK60	ZEM60	60000	30000	1- Good water retention 2- Good workability
	ZK100	ZEM10	100000	50000	
	ZK150	ZEM150	150000	65000	
Modifield	ZG60	ZEMG60	60000	30000	1- Good water retention 2- Good workability 3- Good anti-sagging
	ZG100	ZEMG100	100000	50000	
	ZG150	ZEMG150	150000	65000	
	ZG60H	ZEMG60H	60000	30000	1- Good water retention 2- Good workability 3- Easy mixed 4- Excellent anti-sagging
	ZG100H	ZEMG100H	100000	50000	
	ZG150H	ZEMG150H	150000	65000	
	ZG60T	ZEMG60T	60000	30000	
	ZG100T	ZEMG100T	100000	50000	1- High water retention 2- High water demand 3- Excellent anti-sagging
	ZG150T	ZEMG150T	150000	65000	

*: 2% Content in water, 20C°. mpa.s.



Detergent

Product property and application

HPMC for detergent has the properties of good dispersion, anti-heat and good light transmittance .

Technical Parameters

Product	Grade	Viscosity*		Properties
		NDJ	Brookfield	
Manual	ZWH100	100000	45000	1- Good heat resistance 2- Good transmittance
	ZWH150	150000	60000	
	ZWH200	200000	70000	
Mechanize	ZWD100	100000	45000	1- Good heat resistance 2- Good dispersion 3- Good transmittance
	ZWD150	150000	60000	
	ZWD200	200000	70000	

*: 2% Content in water, 20C°. mpa.s.



Cement based putty

Product property and application

Easy dry mix formulation due to cold water solubility: lump formation can be easily avoided.
 Good water retention: prevention of fluid loss to the substrates, the appropriate water content is kept in mixture which guarantees longer concreting time.

Increased water demand: increased open time, expanded spray area and more economical formulation.

Easier spreading and improved sagging resistance due to improved consistency.

Technical Parameters

Product	Grade		NDJ	Viscosity*		Properties
	HPMC	HEMC		Brookfield		
Normal	ZK60	ZEM60	60000		30000	1- Good water retention 2- Good workability 3- General purpose
	ZK80	ZEM80	80000		40000	
	ZK100	ZEM100	100000		50000	
	ZK150	ZEM150	150000		65000	
Modifield	ZK60X	ZEM60X	60000		30000	1- Long open time
	ZK80X	ZEM80X	80000		40000	2- Exellent Workability
	ZK100X	ZEM100X	100000		50000	3- Long operable time
	ZK60XA	ZEM60XA	60000		30000	1- Long open time
	ZK80XA	ZEM80XA	80000		40000	2- Exellent Workability
	ZK100XA	ZEM100XA	100000		50000	3- Good anti-sagging 4- Long operable time
	ZP80		80000		40000	1-Exellent long operable time
	ZP100		100000		50000	2- Good adhesion strength 3- Less bubbles:
	ZSC70		>60000		>30000	1- Good Workability 2- Low cost

*: 2% Content in water, 20°C , mpa.s.



Other

Application cellulose ether

Product property and application

Cellulose ether for self-leveling mortar has the properties of good water retention, good fluidity and prevent stratification.

Cellulose ether for ceramic extrusion has the characteristics of good water retention and no cracking.

Cellulose ethers for dry mortar have the characteristics of good water retention, good consistency and good construction.

Technical Parameters

Product	Grade	Viscosity		Application	Properties
		NDJ	Brookfield		
Normal	ZK04	400	400	Self-leveling compounds	Good fluidity ,Unstratified
	ZK4	4000	4000	Ceramic extrusion	good water retention, Anti-crack
	ZK40	40000	20000	Masonry mortar, Plaster mortar, Crack fillers, Render mortar	1- Good water retention 2- Good workability 3- Good anti-sagging
	ZK60	60000	30000		
	ZK80	80000	40000		
	ZK100	100000	50000		
ZK150	150000	65000	Thermal insulation mortar	1- Good water retention 2- Good consistency 3- High output	
ZK200	200000	75000			
Anti- heat	ZK40H	40000	20000	Masonry mortar, Plaster mortar, Crack fillers, Render mortar	1- Good anti-heat 2-Good water retention under high temperature
	ZK60H	60000	30000		
	ZK80H	80000	40000		
	ZK100H	100000	50000		

*: 2% Content in water, 20C°. mpa.s.





Hydroxyethyl cellulose (HEC)

Hydroxyethyl Cellulose is a series of non-ionic soluble cellulose ether, which can be dissolved in hot or cold water, and has the characteristics of thickening, suspending, adhesives, emulsion, film coating super absorbent polymers protective colloid, which is widely used in paints, cosmetics, oil drilling and other industries.

As one of professional Hydroxyethyl cellulose suppliers, Zeigel provides series of high quality HEC products to meet several industries for our customers around the world. Our main HEC products include Z150B, ZHQ 100.

Z150B

ITEM	SPECIFICATION	RESULT
Appearance	White or off – white powder , no visible evidence of contamination by foreign matter	Conforms
Identification	Conform	Conforms
PH	6.0 – 8.5	7.9
Viscosity (Brookfield , 1% , 25 C°)	5600 – 7000 cp	6650
Particle Size	Min 92% pass 80 mesh	Conforms
Loss on Drying	Not More Than 6.0%	5.2%
Residue on Ignition	Not More Than 5.0 %	3.1%

Conclusion : conforms with Q/MXHP005 – 2016

ZHQ 100

ITEM	SPECIFICATION	RESULT
Appearance	White or off – white powder , no visible evidence of contamination by foreign matter	Conforms
Identification	Conform	Conforms
PH	6.0 – 8.5	7.8
Viscosity (Brookfield , 1% , 25 C°)	3400 – 5500 cp	5190
Particle Size	Min 92% pass 80 mesh	Conforms
Loss on Drying	Not More Than 5.0%	5.2%
Residue on Ignition	Not More Than 5.0 %	3.3%

Conclusion : conforms with Q/MXHP005 – 2016



Hydroxypropyl Methylcellulose (HPMC)

Hydroxypropyl methyl cellulose is a synthetic high molecular polymer prepared by chemical modification with natural cellulose as raw material. It is a white or slightly yellow powder. Good water solubility. The hydroxypropyl methyl cellulose has properties such as thickening, adhesion, dispersion, emulsification, film formation, suspension, adsorption, gelation, protective colloid properties, surface activity and moisturizing functions. Our main HPMC products include ZK250, ZK200.



ZK250

ITEM	SPECIFICATION	RESULT
Appearance	White or off – white powder , no visible evidence of contamination by foreign matter	Conforms
Identification	Conform	Conforms
PH	5.0 – 9.0	7.9
Viscosity (Brookfield , 2% , 20 C°)	More than 85000 cp	85300
Particle Size	Min 92% pass 80 mesh	Conforms
Loss on Drying	Not More Than 6.0%	5.4%
Residue on Ignition	Not More Than 5.0 %	3.4%

Conclusion : conforms with Q/MXHP005 – 2016

ZK200

ITEM	SPECIFICATION	RESULT
Appearance	White or off – white powder , no visible evidence of contamination by foreign matter	Conforms
Identification	Conform	Conforms
PH	5.0 – 9.0	7.9
Viscosity (Brookfield , 2% , 25 C°)	70000- 80000cp	77100
Particle Size	Min 92% pass 80 mesh	Conforms
Loss on Drying	Not More Than 6.0%	5.4%
Residue on Ignition	Not More Than 5.0 %	3.4%

Conclusion : conforms with Q/MXHP005 – 2016



Methylhydroxyethyl cellulose (HEMC)

Hydroxyethyl methyl cellulose is a gelling and thickening agent derived from cellulose providing or which provides many of the same benefits as other methylcellulose derivatives thickening power, water retention ability, consistency development, suspension power, emulsion development, protective colloid, film formation, lubrication, solution stabilization, and various other functions.

Used to improve the quality and processing characteristics of building materials such as plasters and renders, mortars, tile adhesives, joint compounds and emulsion paints. Our main HEMC products include ZEM6S, ZEM100S.



ZEM 6S

ITEM	SPECIFICATION	RESULT
Appearance	White or off – white powder , no visible evidence of contamination by foreign matter	Conforms
Identification	Conform	Conforms
PH	5.0 – 9.0	7.8
Viscosity (Brookfield , 2% , 20 C°)	5000 – 9000 cp	6370
Particle Size	Min 92% pass 80 mesh	Conforms
Loss on Drying	Not More Than 6.0%	5.3%
Residue on Ignition	Not More Than 5.0 %	3.0%

Conclusion : conforms with Q/MXHP005 – 2016

ZEM 100S

ITEM	SPECIFICATION	RESULT
Appearance	White or off – white powder , no visible evidence of contamination by foreign matter	Conforms
Identification	Conform	Conforms
PH	5.0 – 9.0	7.9
Viscosity (Brookfield , 2% , 20 C°)	45000 – 55000 cp	50100
Particle Size	Min 92% pass 80 mesh	Conforms
Loss on Drying	Not More Than 6.0 %	5.3%
Residue on Ignition	Not More Than 5.0 %	3.2%

Conclusion : conforms with Q/MXHP005 .

Redispersible Polymer Powder (RDP)

Redispersible polymer powder is organic polymer obtained through the spray-drying of aqueous emulsions. It is an indispensable functional additive in dry mixed mortar. It is suitable for mixing with other inorganic adhesives such as cement, lime and gypsum, or as a separate bonding component. It is used in flexible building adhesives, wall and floor leveling materials, filler, plaster mortar and repair mortar.

The redispersible polymer powder can improve the properties of mortar. It can increase the strength of mortar, bond strength between mortar and all kinds of base materials. It also improves the flexibility and deformability, compressive strength, flexural strength, wear resistance, toughness of mortar, adhesion, water retention capacity and workability.



	HP-Z3120	HP-Z2100	HT-Z58002	HT-Z58001
Polymer	VA/E	VA/E	VA/E	VA/E
PH Value	5-8	5-8	5-8	5-8
MFFT (C)	2	0	2	0
Rheology	Neutral	Neutral	Neutral	Neutral
Flexibility	Medium	Excellent	Medium	Excellent
Tile adhesive	**	*	**	*
Thermal insulation systems	**	*	**	*
Self leveling mortar	**	*	**	*
Flexible exterior wall putty	*	**	*	**
Repair mortar	**	*	**	*
Gypsum joint and crack fillers	*	*	*	**
Tile grouts	*	**	*	**
Waterproofing mortar		*		*

* : Workable
 ** : Recommended
 VA : Vinyl Acetate
 E : Ethylene

Methyl Cellulose (MC)

MC presents physiological inertia. It is widely used as thickener, protective colloid, auxiliary emulsifier, pigment, tablet adhesive and film forming agent in medicine, food and cosmetics.

It can also be used as the matrix of suspension or viscous eye drops, stabilizer, defecant and skeleton material.

It is main material of mouthwash and corneal contact eyepiece moisturizer. Hydrophilic gel framework sustained release preparation, microporous membrane or multilayer coating film sustained release preparation were prepared by methyl cellulose.

ITEM	RESULT
Methoxy(%)	27-32
Residue on ignition,%	≤ 1.0
Loss on drying,%	≤ 5.0
PH/PH value	4.0-8.0
Heavy metal,ppm	≤ 20
Arsenic,ppm	≤ 2



Low- substituted Hydroxypropyl Cellulose (L-HPC)

L-HPC is mainly used as a tablet disintegrating agent, to improve tablet disintegration of tablets can accelerate the collapse of the poor after the collapse and disintegration of the fineness of dispersion, thereby improving bioavailability, while the product with the bonding effect on the shape of the drugs can also be easily formed to promote and improve tablet hardness. it Can be used for wet granulation and for dry particles, can also be added as a binder used in starch, can receive increased tablet hardness and improve the effect of tablet disintegration. Dosage 2-5% of the product.



ITEM	USP(ZLH-22)	USP(ZLH-21)	CP
Hydroxypropoxy assay,%	7.0 - 9.9	10.0 - 12.9	7.0 - 16.0
Loss on drying,%	<5.0		<8.0
Heavy metal,ppm	10		20
Residue on ignition,%	<0.5		<1.0
Chloride,%	<0.36		<0.2
Arsenic, ppm			<3

Ethyl Cellulose (EC)

EC can't be dissolve in water although being soluble in many organic solvents , EC is used in tablets, granules of its adhesive agent. It can increase the hardness of tablets to reduce friability tablets, it can be used as film-forming agent to improve the appearance of tablets, isolated taste, to avoid the failur of water-sensitive drugs to prevent the influx of metamorphic change agents, promoting the safe storage of tablets, also can be used as reinforcing material for sustained release tablets.

ITEM	ZK Grade	ZN Grade
Ethoxy(%)	45.5-46.8	47.5-49.5
mpa.s,5% , 20 C/Viscosity, mpa.s,5% solu, 20°C	4, 5, 7, 10, 20, 50, 70, 100, 150, 200, 300	
Loss on drying,%		<3.0
Chloride,%		<0.1
Residue on ignition,%		<0.4
Heavy metal.ppm		<20
Arsenic,ppm		<3.0

Microcrystalline Cellulose (MCC)

MCC is mainly used as binder cellulose, tasteless and odorless fine powder, almost insoluble in water, ethanol, methanol, methyl benzene. It is modified cellulose after hydrolysis of natural cellulose. It is chemically inert, can be combined with all active components. It has good adhesion and plastic deformation. It can improve the hardness of tablets and promote its collapse.

Mainly used as binder, diluent, disintegrating agent of tablet, the usage is 5%-60% in general, 10% - 60% as drying binder in direct compression and capsule diluent.

Grade	Particle Size	Bulk Density (G/cm ³)
ZPH101	80um	0.26 - 0.36
ZPH102	120um	0.28 - 0.33
ZPH103	100um	0.33 - 0.48
ZPH105	25um	0.20 - 0.26
ZPH112	50um	0.38 - 0.48
ZPH301	65um	0.33 - 0.45
ZPH302	80um	0.35 - 0.48
ZPH12	180um	0.30 - 0.36
ZPH14	180um	0.34 - 0.42







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