



CELLULOSE ETHER PRODUCT MANUAL

2024 AICHEMICA International Co., LTD

COMPANY PROFILE

AICHEMICA International Co., LTD is an international company, specialized in development, consulting and supplying chemical raw materials. We are a professional company specialized in research, development and supply different chemical raw materials. We offer high quality products, advanced know-how, after-sales service and technical support. AICHEMICA is able to meet most challenging product requirements to provide effective solutions to the construction, building and petrochemical industries.

Our products are achieved customer satisfaction through quality management, high technical R&D assistance in multiple countries such as: Russian Federation, Uzbekistan, Kazakhstan, Kyrgyzstan, Egypt and UAE. We are cooperating with the leading technical engineers who have PhD degrees in the field of product development and advanced application methods.



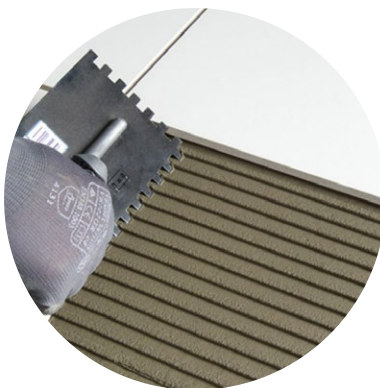
PRODUCT DESCRIPTION

Hydroxyethyl methyl cellulose(HEMC), Hydroxyethyl Cellulose (HEC) and Hydroxypropyl methyl cellulose(HPMC) which are water-soluble, nonionic cellulose ethers. They are formed by substituting some of the cellulose hydroxyl groups with methoxyl and hydroxyethoxyl or hydroxypropoxyl groups.

The desired effects are obtained with low addition amount of AICHEMICA products which our own brand "AICHEMICA", such as smooth workability and sag resistance, providing the appropriate cellulose ether grade tailored to the specific field of application.



Pre-mixed Mortar



Tile Adhesive



Gypsum Based Plaster

Cement Based Plaster



Coating



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
Normal HEC	HEC68	4500-6500 ^{1*}	
	HEC30B	1500-2400	1. Excellent anti-enzyme;
	HEC508	2500-3300	2. Excellent color development;
	HEC100B	3400-5500	
HEC High viscosity HEC	HEC1508	5600-7000	1. High viscosity.good thickening;
	HEC200B	7000-8000	2. Good anti-enzyme;
HEC Economic HEC	HQ30	1500-2400	1. Very good color development;
	HQ50	2500-3300	2. Good anti-enzyme;
	HQ100	3400-5500	3. Good hydrophilicity;
	HQ150	5600-7000	4. Good workability;
MC Modified MC	UR30	15000 ^{2*}	
	URSO	25000 ^{2*}	1. Special etherification;
	UR100	45000 ^{2*}	2. Good color development;
	UR150	60000 ^{2*}	3. Good Workability;
HPMC/ Paint re- mover HPMC	MH-PM4	4000 ^{2*}	1. Dichloromethane and alcohol system;
	MH-PM6	5500 ^{2*}	2. Good swelling and stable;

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

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

2*: Brookfield, RV, 2% content in water, 20 °C, 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		Viscosity*		Properties
	HPMC	HEMC	NDJ	Brookfield	
Normal	AN-S60K	AN-EM60	60000	30000	1. Good water retention; 2. Good workability; 3. General purpose
	AN-S80K	AN-EM80	80000	40000	
	AN-S100K	AN-EM100	100000	50000	
	AN-S150K	AN-EM150	150000	65000	
Modified	AN-S60X	AN-EM60X	60000	30000	1. Long open time;
	AN-S80X	AN-EM80X	80000	40000	2. Excellent workability;
	AN-S100X	AN-EM100X	100000	50000	3. Long operable time;
	AN-S60XA	AN-EM60XA	60000	30000	1. Long open time;
	AN-S80XA	AN-EM80XA	80000	40000	2. Excellent workability;
	AN-S100XA	AN-EM100XA	100000	50000	3. Long operable time;
Pseries		AN-P80	80000	40000	4. Good anti-sagging;
		AN-P80	100000	50000	1. Excellent long operable time; 2. Good adhesion strength;
Economic		AN-SC70	>60000	> 30000	3. Less bubbles 1. Good workability; 2. Low cost;

*: 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	AN-S60K	AN-EM60	60000	30000	1. Good water retention; 2. Good workability;
	AN-S100K	AN-EM100	100000	50000	
	AN-S150K	AN-EM150	150000	65000	
Modified	AN-G60	AN-EM60X	60000	30000	1. Good water retention; 2. Good workability; 3. Good anti-sagging;
	AN-G100	AN-EMG100	100000	50000	
	AN-G150	AN-EMG150	150000	65000	
	AN-G60H	AN-EMG60H	60000	30000	1. Good water retention; 2. Good workability; 3. Easy mixed;
	AN-G100H	AN-EMG100H	100000	50000	
	AN-G150H	AN-EMG150H	150000	65000	
	AN-G60T	AN-EMG60T	60000	30000	1. High water retention; 2. High water demand; 3. Excellent anti-sagging;
	AN-G100T	AN-EMG100T	100000	50000	
	AN-G150T	AN-EMG150T	150000	65000	

*: 2% content in water, 20 °C, mpa.s



TILE ADHESIVE

Product property and application

Good water retention: prolonged open time will make tiling more efficient.

Improved adhesion and sliding resistance: especially for heavy tiles.

Better workability: lubricity and plasticity of plaster is ensured, mortar can be applied easier and quicker.

Technical Parameters

Product	Grade		Viscosity*		Properties
	HPMC	HEMC	NDJ	Brookfield	
Normal	AN-S60K	AN-EM60	60000	30000	1. Good water retention; 2. Good workability; 3. General purpose
	AN-S80K	AN-EM80	80000	40000	
	AN-S100K	AN-EM100	100000	50000	
	AN-S150K	AN-EM150	150000	65000	
Modified	AN-S40X	AN-EM40X	40000	20000	1. Long open time; 2. Good water retention; 3. Good adhesion strength; 4. Good slip resistance
	AN-S60X	AN-EM60X	60000	30000	
	AN-S80X	AN-EM80X	80000	40000	
	AN-S100X	AN-EM100X	100000	50000	
	AN-S40LX	AN-EM40LX	40000	20000	1. Excellent slip resistance; 2. Long open time; 3. Good water retention; 4. Good adhesion strength
	AN-S60LX	AN-EM60LX	60000	30000	
	AN-S80LX	AN-EM80LX	80000	40000	
	AN-S100LX	AN-EM100LX	100000	50000	

*: 2% content in water, 20 °C, mpa.s

DETERGENT

Product property and application

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

Technical Parameters

Product	Grade	Viscosity*		Properties
		NDJ	Brookfield	
Manual	WH100	100000	45000	1. Good heat resistance; 2. Good transmittance
	WH150	150000	60000	
	WH200	200000	70000	
Mechanize	WH100	100000	45000	1. Good heat resistance; 2. Good dispersion; 3. Good transmittance
	WH150	150000	60000	
	WH200	200000	70000	

*: 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		
Manual	AN-S04	400	400	Self-leveling compounds	Good fluidity, Unstratified
	AN-S4	4000	4000	Ceramic extrusion	Good water retention, anti-crack
	AN-S40	40000	20000	Masonry mortar, Plaster mortar, Crack fillers, Render mortar	1. Good water retention; 2. Good consistency; 3. Good workability;
	AN-S60	60000	30000		
	AN-S80	80000	40000		
	AN-S100	100000	50000	Thermal insulation mortar	1. Good water retention; 2. Good consistency; 3. High output;
	AN-S150	150000	65000		
	AN-S200	200000	75000		
Anti-heat	AN-S40H	40000	20000	Masonry mortar, Plaster mortar, Crack fillers, Render mortar	1. Good anti-heat; 2. Good water retention under high temperature;
	AN-S60H	60000	30000		
	AN-S80H	80000	40000		
	AN-S100H	100000	50000		

*: 2% content in water, 20 °C, mpa.s

IMPORTED STARCH ETHER

Product property and application

Imported modified starch ether is a kind of fine white powder which is made from natural plant, after etherification modification at high temperature, and then spray-dried. It does not contain plasticizer. It is completely different from domestic starch or modified starch.

It can be used in cement-based products, gypsum-based products and hydrated lime based products. It is good compatibility with other building admixtures. When used in combination with hydroxypropyl methyl cellulose, it can improve thickening , internal structure, crack resistance and workability. The addition of modified starch ether can obviously reduce the amount of cellulose ether.

Technical Parameters

Items	CASUCOL 301	FP6
Appearance	White fine powder	White fine powder
PH Value	9-11 (3.75% in water)	9-11 (3. 75% in water)
Solubility	Dissolved in cold water	Dissolved in cold water
Fineness	Less than 350um	Less than 350um
Viscosity(5%)	400-1200map.s	600-1600mpa.s
Compatibility with other materials	Very good	Very good
Moisture	Less than 5%	Less than 5%







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