

泸州北方纤维素有限公司 产品说明书

PRODUCT MANUAL OF LUZHOU NORTH CELLULOSE CO.,LTD.

乙基纤维素 (EC)

Ethyl Cellulose (EC)

公司简介

泸州北方纤维素有限公司，是中国兵器工业集团泸州北方化学工业有限公司下属的全资子公司，集纤维素醚类产品生产、销售、研发为一体。公司现有员工 320 人，专业技术人员 80 人，其中高级工程师 10 余人，工程师 20 余人。

公司位于“西部化工城”——四川省泸州市龙马潭临港工业园区，南临长江，东靠泸州国际集装箱出海港，西邻泸州机场，北接沪隆铁路，四周由夏蓉高速、成渝环线高速、成遵高速环绕，地理环境优美、交通便捷。

公司具有悠久的纤维素醚类产品生产历史，是专业生产销售乙基纤维素、羟乙基纤维素等的企业，具备年产 1000 吨乙基纤维素、6000 吨羟乙基纤维素生产能力。产品主要应用领域有：涂料、建材、油气开采、医药、口腔护理、洗护用品、电子元件、纺织、烟草、陶瓷、高分子聚合、新能源材料等。多领域的应用研究拓展了公司对纤维素醚类产品的发展方向，为工艺改进、提升质量、新品研发提供了强大动力。

秉承为用户提供有价值的产品和服务的经营理念，打造中国纤维素行业旗舰，树立良好的社会公信形象和负责任的公司形象是我们执着追求，公司恪守有抱负、负责任、受尊重的价值观，诚心对待客户、供应商和战略合作者，共同构建利益共同体，做和谐发展、诚信经营、环境友好型企业的模范。公司总经理携全体员工愿与社会各界携手共进、互惠共赢，开创更加美好的明天！

Luzhou North Cellulose Co., Ltd.

Brief Introduction

Luzhou North Cellulose Co., Ltd., a wholly-owned subsidiary of Luzhou North Chemical Industries Co., Ltd. under China North Industries Group Corporation, integrates the production, marketing and development of cellulose ether products. The company has 320 employees, including 80 specialized technicians, over 20 engineers and more than 10 senior engineers.

The company is located in “Western Chemical Industrial City”—which is the Port-adjacent Industrial Park in Longmatan District, Luzhou City, Sichuan Province. With Yangtze River to the south, Luzhou International Container Dock to the east, Luzhou Airport to the west and Lu-Long Freeway and Railway to the north, it enjoys perfect geographical environment and convenient transportation.

With a long history of cellulose ethers production, the company specializes in the production and marketing of hydroxyethyl cellulose, ethyl cellulose, etc. It is capable to produce 1,000 tons of ethyl cellulose, 6,000 tons of hydroxyethyl cellulose per year. Its products have been widely used in various fields, mainly including coating, oral care, skin care, medicine, ceramic, building materials, high polymer, new energetic materials, electronic components, production of oil and gas, etc. Its tremendous investigations into many applications have widened its development direction for the cellulose ethers, and strongly motivated the process and quality improvement and new product development.

Adhering to the concept of providing valuable products and service to the consumers, the company aims at establishing attractive image of social trust and responsibility, and tries to become the flagship of the Chinese cellulose industry. With the concept of being ambitious, responsible and honorable, the company cooperates with its consumers, suppliers and strategic copartners with great sincerity, resulting in a community of interests. It strives to become a model of harmonious development, faithful operation and environmental-friendly enterprises.

On behalf of the company, the general manager invites you with great sincerity from every field to go forward hand in hand, achieve mutual benefits and create a more beautiful future.

乙基纤维素 (EC) Ethylcellulose (EC)

● 产品简介 Brief Description

乙基纤维素 (EC) 是以天然纤维素为主要原料, 经过化学反应加工制成的一种有机溶性纤维素醚, 属非离子型纤维素醚类。外观为白色至微黄色粉末或颗粒, 无嗅、无味、无毒。

Ethylcellulose (EC) is a kind of cellulose ether soluble in organic solvents from natural cellulose through a series of chemical reactions. It belongs to nonionic cellulose ether. It is white to slightly yellow product in powder or granule form without odor or taste.

● 产品性质 Basic Properties

- 不溶于水, 吸湿性小, 残渣低, 电学性能好;
Insoluble in water, low hygroscopicity, low residue, good electrical properties;
- 对光、热、氧、湿具有良好的稳定性, 不易燃烧;
Nice stability to light, heat, oxygen, and wet, and it is inflammable;
- 对化学品稳定, 能耐强碱、稀酸和盐溶液;
Stable to chemicals, resistant to alkali, dilute acid and salt solution;
- 能溶于醇、醚、酮、酯、芳烃、卤代烃等有机溶剂, 具有良好的增稠性和成膜性。
Soluble in alcohol, ether, ketone, ester, aromatics, halogenated hydrocarbons and other organic solvents, good thickening and film forming property.

● 产品技术要求及规格 Product Specifications

1、工业级产品 (Industrial Grade)

主要技术指标 The main specifications are as follows

产品型号 Product Types		K 型	N 型	T 型
指标项目 Specifications				
乙氧基含量, % Ethoxyl content, %		45.0~47.4	47.5~49.5	≥49.6
粘度 ¹ (20℃或 25℃) , mPa.s Viscosity (20℃or25℃) , mPa.s		见产品粘度规格表 Refer to Viscosity Specification Table		
溶解度, % Solubility, %		≥99.0		
灰分含量 ² , % Ash content, %	硝酸法,	≤0.3		
	硫酸法 (以硫酸盐计)	≤0.4		

水分含量, % Moisture content, %	≤3.0
筛余物, (粉末、0.85mm 筛), %	≤1.0

注: 1、粘度可在 20℃或 25℃条件下检测, 需注明。
 2、仅提供一项灰分指标, 若无明确要求灰分仅指硝酸法灰分; 硫酸盐灰分亦指灼灼残渣。
 3、对于以上指标, 用户有特殊要求时, 可由供需双方协商确定。

Note: 1. Viscosity could be tested in 20°C or 25°C, please mark out.
 2. We provide the data of Ash only. if there's no other requirement ash means nitrate ash. Sulfate ash means residue on ignition.
 3. If customer has any special demands about the above index, it might be decided by both parties.

工业产品粘度规格 Viscosity specifications

产品规格 Product types	粘度范围 mPa.s Viscosity range, mPa.s	产品规格 Product types	粘度范围 mPa.s Viscosity range, mPa.s
7	6~9	70	62~78
10	8~12	100	90~110
15	12~18	110	100~120
20	18~24	150	135~165
35	30~39	200	180~220
50	45~55	250	220~270
55	51~61	300	270~330

注: 产品粘度范围可按用户要求进行调整。

Note: The viscosity range can be adjusted according to customers' demands.

2、医药级产品 (Pharmaceutical Grade)

主要技术指标 The main specifications are as follows

乙氧基含量, % Ethoxyl content, %	44.0~51.0
粘度 (1:4 乙醇甲苯溶剂, 5%, 25℃) mPa.s Viscosity (1:4ethanol-toluene, 5%, 25°C) mPa.s	见医药级产品粘度规格表 Reference to Table of Viscosity for Pharmaceutical Grade EC
酸碱度 PH	合格
氯化物, % Chloride, %	≤ 0.1
乙醛, % Acetaldehyde, %	≤ 0.01

干燥失重, % Loss upon drying, %	≤	3.0
炽灼残渣, % Ignited residue, %	≤	0.4
重金属, % Heavy metals, %	≤	0.0010
砷盐, % Arsenic, %	≤	0.0003

注：产品指标符合中国药典 2020 版

Note: The specifications should comply with 2015 edition of *Chinese Pharmacopoeia*.

医药级产品粘度规格表 Viscosity specifications

粘度规格 Product types	粘度范围 mPa.s Viscosity range, mPa.s	粘度规格 Product types	粘度范围 mPa.s Viscosity range, mPa.s
7	5.6~8.4	70	56.0~84.0
10	8.0~18.0	100	80.0~120.0
20	16.0~24.0	200	160.0~240.0
50	40.0~60.0	300	240.0~360.0

注：产品粘度规格可在药典规定的范围内协商确定。

Note: The viscosity range can be adjusted according to customers' demands within the scope of pharmacopoeia.

● 产品的应用 Product Applications

1、工业级乙基纤维素（Industrial Grade）

- 用于各种常规油性涂料，如耐碱性涂料、金属表面涂料、纸制品涂料、树脂漆、可剥离涂料和木器漆；
For a variety of conventional oil-based paints, such as alkali-resistant coatings, metal surface coatings, paper products coatings, resin paint, strippable coatings and wood coatings;
- 用于油墨，如磁性油墨、印刷油墨、凹印和苯胺印油墨；
For inks such as magnetic inks, printing inks, gravure and flexo inks;
- 用作粘结剂，用于电子浆料、集成电路、玻璃熔结料、砂纸、清漆、颜料糊、硬质合金和陶瓷粘合剂等；
As a binder for electronic paste、integrated circuits, glass frit, sandpaper, varnish, paint paste, cemented carbide and ceramic adhesives;
- 用于特种塑料和特殊沉淀，如火箭推进剂包覆带；
For special plastic and special precipitation, such as rocket propellant coated belt;
- 用于高分子材料的悬浮聚合分散剂，如制备高档无毒的 PVC 树脂；
Suspension polymerization dispersant for polymer materials, such as the preparation of high-grade

non-toxic PVC resin;

- 用于金属工件冲压的固体润滑剂基料、易擦掉的黑板墨汁、油-水型美容润肤化妆品等。
Solid lubricant base material, easy erasing blackboard ink, and oil-water based skin care cosmetics for stamping metal parts.

2、医药级乙基纤维素 (Pharmaceutical Grade)

- 用于片剂粘合剂和薄膜包衣材料等；
For tablet adhesives and film coating materials;
- 用于骨架材料阻滞剂，制备多种类型的骨架缓释片；
For the skeleton material blockers, to prepare various types of skeleton sustained-release tablets;
- 用于混合材料制备包衣缓释制剂、缓释小丸；
For mixed materials to prepare coated sustained-release agent and pellets;
- 用于维他命片、矿物药片的粘合剂、缓释剂和防潮剂。
For adhesive, sustained-release agent and moisture-proofing agents of vitamin tablets and mineral tablets

● 包装形式 Packaging

包装采用内层聚乙烯塑料薄膜袋，外层三合一复合纸袋或纸桶；每件净重 10 公斤或 20 公斤。

EC product should be packed with composite paper-plastic bag or drum, both lined with polyethylene film bag. Net weight is 10kg or 20kg per piece.

● 储运注意事项 Precautions for Storage and Transportation

运输过程中注意防雨、防晒、防钩。贮藏时放置于密闭、干燥处，注意防潮、勿与其它化学品混放。

医药级产品不得与有毒、有害、有异味的货物混装、混运或混合存放。

During transportation, attention should be paid to avoid rain water, direct sunshine and damage from hook. The product should be stored in dry and ventilated place and separated from other chemicals.

The pharmaceutical grade product should be separated from any toxic, harmful substance or substance with strange odor during transportation and storage.