

东营市诺尔化工有限责任公司

DONGYING NUOER CHEMICAL CO., LTD.

公司简介 Company Profile

东营市诺尔化工有限责任公司创立于1997年，地处广袤美丽的黄河三角洲腹地，与中国第二大油田（胜利油田）为邻，是一家专业高分子聚丙烯酰胺研发、生产、销售为一体的现代化高新技术企业。

Founded in 1997, Dongying Nuoer Chemical Co., Ltd. is a modernized and high-tech enterprises, engaged in the research and development of the

sewage treatment agent, paper-based additives. It is lied in the vast wonderful Yellow River Delta hinterland- Guangrao, Shengli Oilfield ,China's Second largest oil field ,is located in its North.



东营市诺尔化工有限责任公司
DONGYING NUOER CHEMICAL CO., LTD.

水处理化学品

WATER TREATMENT CHEMICALS

造纸化学品

PAPER MAKING CHEMICALS

选矿化学品

MINERAL PROCESSING CHEMICALS

高吸水性树脂

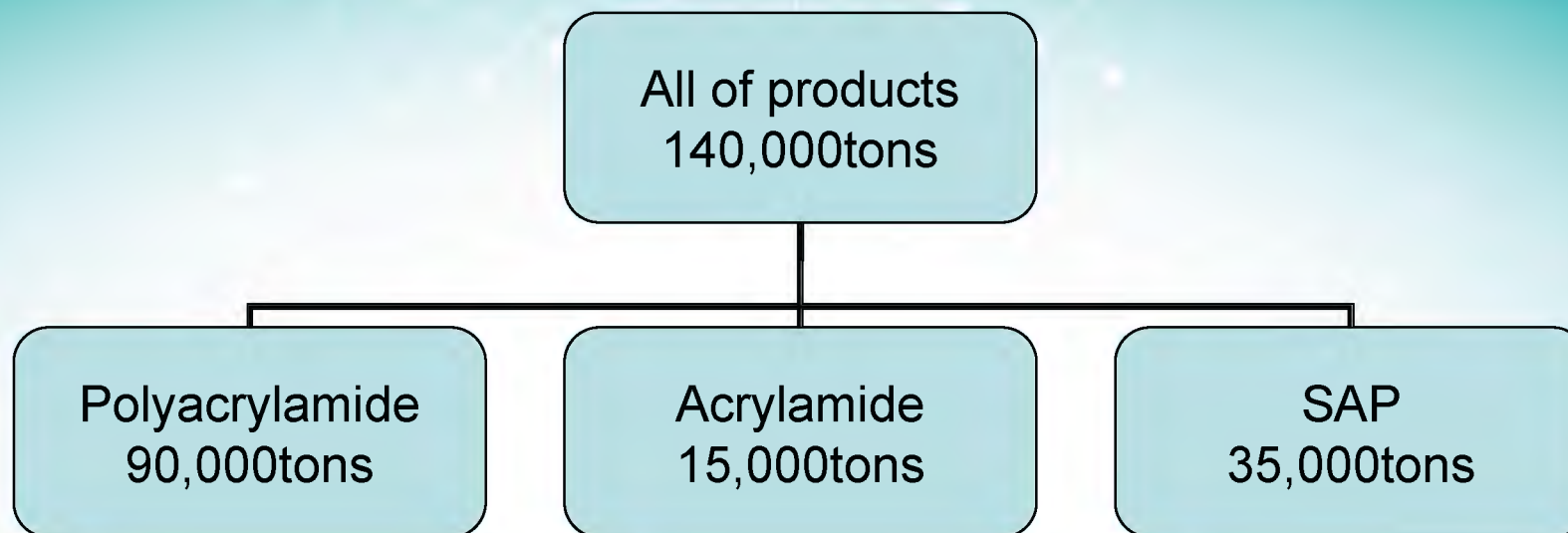
SUPER ABSORBENT POLYMER(SAP)

丙烯酰胺

ACRYLAMIDE(AM)

目前产量 Current Production Rate

全部产品年产量：140,000tons/year, 预计2015年产品年产量将达到：300000tons/year.



国际市场销售模式

International Market Sales Model



2012年-2017年销售战略

2012-2017 Marketing strategy

1. 完成销售市场网络布局

Achieve distribution channels

2. 整合销售网络，寻找区域独家代理商

Integrate the sales channels, looking for area sole agent

3. 逐步尝试海外投资，设立海外工厂，实现跨国经营

Try to overseas investment, and set up overseas factory, realize the multinational management

水处理化学品

WATER TREATMENT CHEMICALS

有机高分子絮凝剂

Organic Macromolecular Flocculant

1. 阳离子聚丙烯酰胺
Cationic Polyacrylamide (CPAM)
2. 阴离子聚丙烯酰胺
Anionic Polyacrylamide (APAM)
3. 非离子聚丙烯酰胺
Nonionic polyacrylamide (NPAM)
4. 两性离子聚丙烯酰胺
Zwitterionic Polyacrylamide (ZPAM)

无机絮凝剂

Inorganic Flocculants

1. 聚合硫酸铁
Polymeric Ferric Sulfate
2. 聚合氯化铝
polyaluminum chloride (PAC)
3. 硫酸铝
Aluminium Sulfate

阳离子聚丙烯酰胺 Cationic Polyacrylamide (CPAM)

- 特点Characteristic:

1. 水溶性好，在冷水中也能完全溶解。

Good water soluble, can also completely dissolved in cold water.

2. 添加少量阳离子聚丙烯酰胺产品，即可受到极大的絮凝效果。

一般只需添加 $0.01 \sim 10 \text{ppm}$ ($0.01 \sim 10 \text{g/m}^3$)，即可充分发挥作用。

Adding a bit of cationic polyacrylamide products can be a tremendous flocculation effect, general speaking, the dosage only from 0.01 to 10 PPM ($0.01 \sim 10 \text{g/m}^3$), will be good effect.

3. 同时使用阳离子聚丙烯酰胺产品和无机絮凝剂（聚合硫酸铁，聚合氯化铝，铁盐等），可显示出更好的效果。

At the same time, cationic polyacrylamide works with inorganic flocculant (such as polyferric sulphate, PAC, molysite and etc.), will show the best effect.



- **功能Function:**

1. 澄清净化作用;
Clarify purification function
2. 沉降促进作用;
Settlement further function
3. 过滤促进作用;
Colation further function
4. 增稠作用及其它作用;
Thickening and others function



在废水处理、污泥浓缩脱水、选矿、洗煤、造纸等方面，能够充分满足各种领域的要求。

In wastewater treatment, sludge dewatering, mineral processing, coal washing, paper making and so on, can meet the requirements of various fields

• 产品选型注意事项

Product selection matters needing attention.

1. 絮凝剂的选择必须充分考虑到工艺和设备的要求；

Flocculant choice must be think over the technology and equipment requirements

2. 可以通过提高絮凝剂的分子量来提高絮体的强度；

Can improve the molecular weight and then improve strength effect.

3. 絮凝剂的电荷值必须通过实验进行筛选；

Flocculant charge must be choice by the experiment.

4. 气候变化（温度）影响絮凝剂的选型；

Climate change (temperature) produce an effect on the types of choice.

5. 处理前絮凝剂必须和污泥充分混合溶解；

Before waste water treatment, flocculant must be dissolved with mud fully mixing.

• 应用领域Application:

1. 作为絮凝剂，主要应用于工业固液分离过程，包括沉降、澄清、浓缩及污泥脱水等工艺，应用的主要行业有：城市污水处理、造纸工业、食品加工业、石化工业、冶金工业、选矿工业、染色工业和制糖工业及各种工业的废水处理。

As a flocculating agent, mainly used in industrial solid-liquid separation process, including settlement, to clarify, concentrate and sludge dewatering processes. Applications for all the major sectors are: Urban Sewage Treatment, Paper, Food Processing, Petrochemical, Metallurgical Processing, Dyeing and the Sugar and all kinds of industrial wastewater treatment.

2. 在造纸工业中可用作纸张干强剂、助留剂、助滤剂，能极大的提高成纸质量，节约成本，提高造纸厂的生产能力。可直接与无机盐离子、纤维以及其它有机高分子发生静电桥梁作用以达到增强纸张的物理强度，减少纤维或填料的流失，加快滤水，起增强、助留、助滤作用，还可以用于白水的处理，同时，在脱墨过程中能起明显的絮凝效果。

In the paper industry can be used as dry strength agents, retention agent, filter aid. They can be greatly improved as paper quality, enhance the physical strength of paper and reduce the loss of fiber, can also be used in the treatment of white water at the same time, in the deinking process can play a significant flocculation.

3. 在采矿、选煤行业中可作矿山废水、洗煤废水的澄清剂；

In the mining, coal mining industry can be used for waste water, coal washing waste water clarifier.

4. 可用于染色废水、皮革废水、含油废水的处理，使之除浊、脱色，以达到排放标准。

They Can be used for dyeing wastewater, leather wastewater, oily wastewater treatment, so that turbidity removal, decolorization, to achieve the emission standards.

5. 用于以江河水源的自来水厂的水处理絮凝剂。

For the tap water in the river water treatment plant flocculant



阳离子聚丙烯酰胺的应用案例

Cationic Polyacrylamide Application Case

- 造纸污水处理案例 Paper mill waste water treatment case

1. 华泰纸业 SHANDONG HUATAI PAPER INDUSTRY CO., LTD. (www.huatai.com.cn)

★华泰纸业是目前中国最大的新闻纸制造商,年产量300-400万吨。

Shandong Huatai Paper is the biggest newsprint producer in China today, annual output up to 3-4 million tons.

★山东斯道拉恩索华泰纸业有限公司成立于2006年4月,位于山东省东营市,是斯道拉恩索集团和山东华泰纸业股份有限公司之间的合资企业。

Stora Enso Huatai Paper Co., Ltd., established in April 2006, is the joint-venture of Stora Enso Group and Shandong Huatai Paper Co.,

★华泰纸业是诺尔化工在造纸污水处理领域的最大合作伙伴之一。

Shandong Huatai Paper is one of the biggest partners with DONGYING NUOER CHEMICAL CO., LTD. which in papermaking wastewater treatment in the field.



2. 晨鸣纸业 SHANDONG CHENMING PAPER GROUP CO.,LTD (www.chenmingpaper.com)

★山东晨鸣纸业集团股份有限公司是以造林、制浆、造纸为主业的大型企业集团，全国首家A、B、H三种股票上市公司，拥有武汉晨鸣、晨鸣热电、齐河晨鸣、湛江晨鸣、江西晨鸣、延边晨鸣、吉林晨鸣等10多家生产子公司。总资产500多亿元，年纸品生产能力实现600万吨，

Shandong Chenming Paper Holdings Ltd., the first enterprise listing A share, B share and H share in the paper-making industry, is a large-scale group integrating pulp-making and paper-making. The group is made up of more than 10 subsidiaries such as Wuhan Chenming, Chenming Electric Power, Qihe Chenming, Zhenjing Chenming, Jiangxi Chenming, Chibi Chenming, Yanbian Chenming, Hailaer Chenming, Jilin Chenming etc., with a total asset 50 billion yuan, production capacity of 6 million tons per year,

★晨鸣纸业也是诺尔化工在造纸污水处理领域的最大合作伙伴之一。

Shandong Chenming Paper is also one of the biggest partners with DONGYING NUOER CHEMICAL CO., LTD. which in papermaking wastewater treatment in the field.



3. 玖龙纸业Nine Dragons Paper (www.ndpaper.com)

★玖龙纸业(控股)有限公司(「玖龙纸业」或「本公司」)(股份编号: 2689) 成立于一九九五年, 按产能计算, 为亚洲最大的包装原纸生产商(包括日本在内), 也是全球最大的包装原纸生产商之一。玖龙纸业及其附属公司(「本集团」)主要生产卡纸(包括牛卡纸、环保牛卡纸及白面牛卡纸)、高强瓦楞芯纸, 以及涂布灰底白板纸。

Established in 1995, Nine Dragons Paper (Holdings) Limited ("ND Paper" or the "Company") (Stock Code: 2689) is the largest packaging paperboard producer in Asia (including Japan) and one of the largest in the world in terms of production capacity. ND Paper and its subsidiaries (the "Group") primarily produce linerboard, including kraftlinerboard, testlinerboard and white top linerboard, high performance corrugating medium and coated duplex board.

★玖龙纸业也是诺尔化工在造纸污水处理领域的最大合作伙伴之一。

Nine Dragons Paper is also one of the biggest partners with DONGYING NUOER CHEMICAL CO., LTD. which in papermaking wastewater treatment in the field.



4. 北控水务 Beijing Enterprises Water Group Limited (www.bewg.com.hk)

★北控水务集团有限公司(「北控水务集团」)是香港联合交易所主板上市公司(股份代号:0371),是国内具有核心竞争力的大型水务集团。北控水务集团以“领先的综合水务系统解决方案提供商”为战略定位,以市场为基础,以资本为依托,以技术为先导,以管理为核心,专注于供水、污水处理等核心业务和环保行业。

Beijing Enterprises Water Group Limited ("BEWG"), a company listed on the Main Board of The Stock Exchange of Hong Kong Limited (Stock Code: 0371), is a large-scale group which has its own competitive advantage in water supply industry in mainland China. BEWG has strategically positioned itself as a "leading integrated water system solution provider". Leveraged on its market-oriented approach, solid capital foundation, advanced technology and sound management, the Group focuses on its core businesses on water supply and sewage treatment business as well as environmental protection business.



选矿化学品

MINERAL PROCESSING CHEMICALS

1. 氧化铝专用赤泥沉降絮凝剂

Special flocculant for the red mud alumina

2. 金、银、铜、磷矿等选矿专用絮凝剂

Special flocculant for Gold ore , silver ore , copper, phosphorite ore and others ore mineral processing

3. 洗煤专用絮凝剂

Special flocculant for coal washing

氧化铝专用赤泥沉降絮凝剂

Special flocculant for the red mud alumina

产品效果: Effects:

* 絮凝力强，絮凝过程快速、稳定

Flocculating powerfully, fast and steady .

* 形成的絮团小而结实、耐剪切

Being helpful in forming small and tight flocks, good resistance to shear

* 有效降低铝酸液中浮游物含量，提高沉降槽产能

Reducing seston in acid aluminum effectively and improving settling tank capacity

* 提高澄清度，改善溢流质量

Improving clarity and the quality of the overflow

* 底流液固比低

Lowling liquid-solid ratio

* 防止赤泥膨胀

Preventing red mud inflation

* 受温度、PH值影响小

Temperature and pH value have little influence on the product

技术推广 technology transfer:

2009年2月4日-5日，受山东环境保护局委托，山东省环境保护产业协会专家委员会组织六位专家，专门对我公司产品进行评测，得出诺尔产品性能价格均优于国外产品，被作为重要产品推荐给各大氧化铝厂。

On February 4th and February 5th, 2009, entrusted by Shandong Environmental Protection Agency, the expert committee in Shandong environmental protection industry association arranged six experts to evaluate our products specially. They conclude that Nuor product performance is superior to that of foreign products, and recommend it as an important product to the aluminum manufacturers.



诺尔化工部分合作供应商

A Part of the cooperation supplier with Nuoyer Chemical

公司名称company name	English Name	网址 website
中国铝业	Aluminum Corporation of China (CHINALCO)	www.chalco.com.cn
魏桥铝业（宏桥铝业）	Weiqiao aluminium	www.wqfz.com
龙口铝业	Shandong Longkou aluminium	www.conglin-al.com
三门峡开曼铝业	Kaiman Aluminum	Kaiman Aluminum co., ltd.
平果铝业	PingGuo Aluminum Corporation	http://jz.qincai.net/corp-123461.html

金、银、铜、磷矿等选矿专用絮凝剂

Special flocculant for Gold ore , silver ore , copper, phosphorite ore and others ore mineral processing

★在绝大多数的矿物加工过程中，需要应用高分子量或超高分子量的絮凝剂进行沉降和离心。

In the vast majority of mineral processing, high molecular weight or ultra-high molecular weight flocculants for sedimentation and centrifugation are widely applied.

NUOERFLOC阴离子系列产品可以提供这种高分子量或超高分子量的絮凝剂，保证沉降和离心过程的效果好、效益佳。

诺尔化工生产的多种絮凝剂和凝聚剂产品包括大范围的阴、阳离子电荷、密度（也即水解度、阳离子度）多种分子量产品，这些都可以用于矿物的加工过程，用户可以根据所使用条件选用，或根据用户的具体要求的条件生产。

NUOERFLOC anion series products including such high molecular weight or ultra-high molecular weight flocculants, which make sedimentation and centrifugal process won good results, good benefits.

Nuoer Chemical produces a variety of flocculants, referring to a wide range of Anion, Cation charge, Density (Degree of Hydrolysis, Cation Ion of Degree) ,a variety of molecular weight products, which can be used in mineral processing. The customers can according to Conditions of Usage to select the proper type of product, or according to the conditions of the customers 's specific requirements of production.

洗煤专用絮凝剂

Special flocculant for coal washing



高吸水性树脂

SUPER ABSORBENT POLYMER(SAP)

功能 Effect:

高分子吸水树脂，为网状高分子无毒聚合物，有极强的吸水性能。本产品采用国外最先进的技术。

Water-absorbent polymer resin, polymer mesh for the non-toxic polymer, can be highly absorbent. This product is used the most advanced foreign technology.

用途 Function:

1) 医疗卫生：卫生巾，尿垫，尿裤，医用床垫，吸水纸，缓释性药物，膏，水袋等。

Health: sanitary napkins, Wet Pad, Cloth Diaper, medical mattresses, absorbent paper, sustained-release drug, cream, water bag and so on.

2) 农业和园林：土壤保水，种子包衣，拌种育苗。Agriculture and garden: the soil water, seed coating, breeding seed dressing.

3) 工业：止水膨胀橡胶，吸水防污涂料，防结露涂料，防静电涂料，油田堵水及油水分离，光缆用阻胶带及缆膏，混凝土的养护等。Industry: the rubber seal, water-fouling coatings, anti-condensation coating, anti-static coatings, water and oil-water separation, with fiber optic cables and tape resistance paste, conservation of concrete.

4) 食品工业用吸水剂，水果和蔬菜的保鲜剂。Food industry: preparation of water-absorbent, preparation of fruits and vegetables preservative.

丙烯酰胺

ACRYLAMIDE(AM)

物理特性Physical Properties:

- ◆固体丙烯酰胺是一种白色晶体化合物，液体的丙烯酰胺无色无味，分子式为 C_3H_5NO ，由丙烯腈完全反应形成。易容与水、甲醇、乙醇、丙醇，稍溶于乙酸乙酯、氯仿，微溶于苯。

Solid Acrylamide is a kind of white crystal chemical compound with the chemical formula C_3H_5NO . Liquid acrylamide is colorless and odorless. Its material is acrylonitrile. It is easily dissolved in water, carbinol, ethanol or propyl alcohol and dissolved in ethyl acetate and chloroform slightly and in benzene a bit.

- ◆此产品主要用于生产各种聚合物，广泛的应用于各种工业，废水处理、煤炭业、造纸业、纺织业、采矿业、制糖业、建筑业、农业、油田等。

It is mainly used to produce a variety of polymer and widely applied in different industries, such as sewage treatment, coal industry, papermaking, textile, , metallurgy, sugar making, construction, agriculture, oilfiled etc.