



钴盐粘合增进剂

COBALT SALT
ADHESION PROMOTER

朝阳市征和化工有限公司
ZHENGHE CHEMICAL

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ZHENGHE CHEMICAL CHAOYANG CO.,LTD

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公司简介 COMPANY PROFILE

朝阳市征和化工有限公司始建于1999年，公司位于中国辽宁省朝阳市。专业从事钴盐型粘合增进剂的研制和生产，系列产品包括癸酸钴、硼酰化钴、环烷酸钴和硬脂酸钴；近期，又成功研制出了镍盐型粘合增进剂系列产品、镍盐型合成橡胶催化剂和稀土盐型合成橡胶催化剂系列产品。现年总生产能力为2000吨。根据企业发展的实际需求，下一步拟在化工园区新征土地，进行扩产改造工作，设计生产能力为年产10000吨。

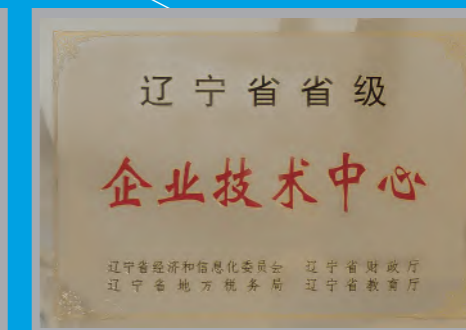
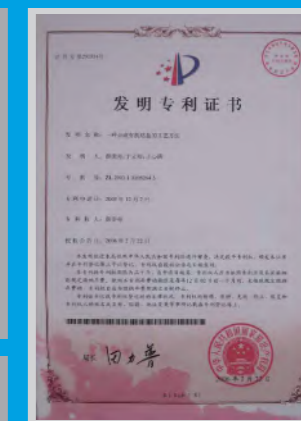
自2006年以来，我公司先后获得两项国家发明专利（一种合成有机钴盐的工艺方法、复合金属盐粘合增进剂的制备方法），以及近二十项国家实用新型发明专利。公司全面推进质量管理，已通过IATF16949—2016汽车行业管理体系认证、ISO14001—2015环境管理体系认证、ISO9001—2015质量管理体系认证、ISO45001—2018职业健康安全管理体系认证，并被评为国家高新技术企业。企业拥有省级技术中心，和一支专业研发团队，与国内诸多科研院所密切合作，不断推出高、新、专系列产品。目前，公司产品已完成欧盟REACHE法规的预注册及相关工作。

Zhenghe Chemical Chaoyang Co., Ltd., founded in 1999, is located in Chaoyang City, Liaoning Province, China. The company specializes in the development and production of cobalt salt adhesion promoters, series products including cobalt neodecanoate, cobalt boroaceglate, cobalt naphthenate and cobalt stearate; recently, it has successfully developed nickel salt adhesion promoter series products, nickel salt synthetic rubber catalysts and rare earth salt synthetic rubber catalyst series products. The current annual production capacity is 2000 tons. Currently, a land of 100 mu has been acquired in the chemical industry park for production expansion and transformation, and the designed production capacity is 10,000 tons per year.

Since 2006, our company has successively obtained two national invention patents (a process method for synthesizing organic cobalt salt and a preparation method for composite metal salt adhesion promoter), as well as nearly 20 national utility model invention patents. Performing comprehensive promotion of quality management, the company has passed IATF16949-2016 automotive industry management system certification, ISO14001-2015 environmental management system certification, ISO9001-2015 quality management system certification, ISO45001-2018 occupational health and safety management system certification, and has been rated as a national high-tech enterprise. With a provincial-level technology center and a professional R&D team, the enterprise cooperates closely with many domestic research institutes to continuously launch high-tech, new and specialized series products. At present, the products of the company have completed the pre-registration and related work of the EU REACHE regulations.



成绩殊荣 ACHIEVEMENTS AND GREAT HONORS

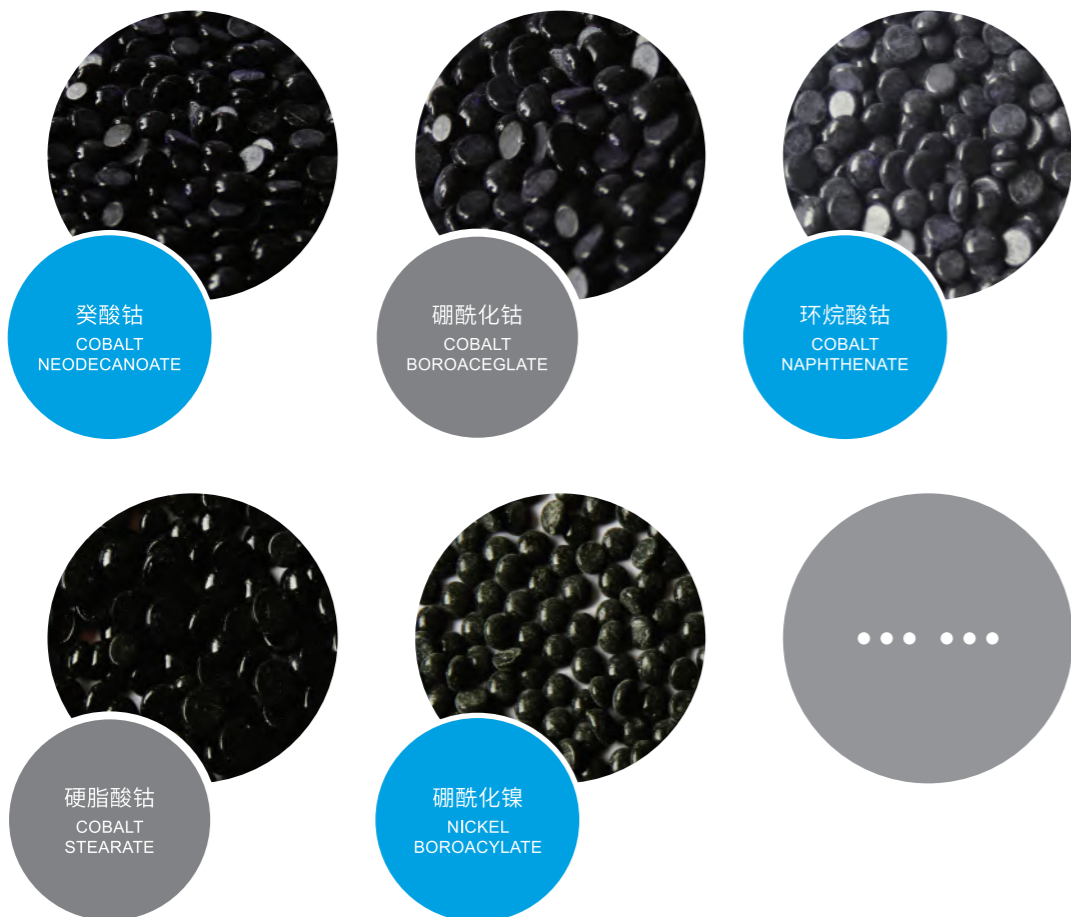


产品简介

PRODUCT INTRODUCTION

我公司生产经营钴盐粘合增进剂产品，等效采用美国费尔斯通、意大利皮列里和英国邓禄普等国外先进标准组织生产。现有两个系列，一系列用于钢丝子午线轮胎中，另一系列用于钢丝缠绕胶管、钢丝绳运输胶带等橡胶制品中。每个系列中包含四种产品：癸酸钴、硼酰化钴、环烷酸钴、硬脂酸钴和硼酰化镍等。

This company produces and distributes cobalt salt adhesion promoter products, which are equivalently produced as per foreign advanced standards such as Firestone in the United States, Pirelli in Italy and Dunlop in the United Kingdom. There are two series. One series is used in radial wire cord tires, and the other series is used in rubber products such as steel wire winding hoses and steel wire rope conveyor belts. Each series contains four kinds of products: cobalt neodecanoate, cobalt boroaceglate, cobalt naphthenate, cobalt stearate and nickel boroacylate.



技术创新

TECHNOLOGICAL INNOVATION



本公司产品采用湿法专利工艺技术生产，产品性能独特、绿色环保。经权威部门检测，产品具有氧化程度低、老化后钢丝粘合力保持率高的特点。

The products of the company are produced using wet process patented technology, with unique product performance and green environmental protection. Tested by the authoritative department, the products are featured by low oxidation degree and high retention rate of steel wire adhesion after aging.

多年来，我公司围绕钴盐系列产品，往性能更高、成本更低、更加绿色环保的方向，相继研制开发出以下产品：
Over the years, our company has developed the following products in the direction of higher performance, lower cost, and greener environmental protection around the cobalt salt series products:

01

*从稀土元素中进行分子筛选，能与金属钴产生协同效应型高性能钴盐粘合促进剂。能够大幅节约钴资源，提升橡胶制品的耐老化性能，产品更加绿色环保。

*Molecular screening from rare earth elements can produce a synergistic effect type high-performance cobalt salt adhesion promoter with metal cobalt. It can greatly save cobalt resources, improve the aging resistance of rubber products, and make the products more environmentally friendly.

02

*镍盐型粘合增进剂硼酰化镍，能够替代钴资源，提升产品的性价比，增强产品的市场竞争力。
*Nickel salt adhesion promoter nickel boroacylate can replace cobalt resources, improve product cost performance, and enhance product market competitiveness.

03

*涂覆型改性钴盐粘合增进剂，使橡胶与无镀层钢帘线间直接粘合，能够有效降低橡胶制品的成本，提高橡胶制品的性能。

*Coating modified cobalt salt adhesion promoter can directly bond the rubber with uncoated steel cord, effectively reduce the cost of rubber products and improve the performance of rubber products.

上述产品得以市场推广应用后，可有效提升我公司产品的市场竞争能力，同时具有良好的经济效益、社会效益和环境效益！

After being promoted and applied in the market, the above-mentioned products can effectively enhance the market competitiveness of our products, and moreover, have good economic, social and environmental benefits!

研发团队

R & D TEAM

现有从业人员180人,其中管理人员50人,拥有专业技术人员30人,高级技术职称工程师8人,中级技术职称工程师7人,本科学历覆盖率100%。近年来,公司相继投资2000万元筹建了技术研发实验室和理化分析中心,新建成胶料混炼车间、硫化车间,胶料性能测试中心。同时引进了气相色谱仪、原子发射光谱、橡胶流变仪等先进的检测设备,设备总投资超过1000万元。新建成的实验室,具备橡胶制品生产和检测的能力。

公司技术总监严忠庆先生毕业于清华大学工程化学系,曾荣获国家科技进步二等奖,化工部科技进步奖及其他省部级奖,荣获国务院津贴,是钴盐国产化创始人之一。

There are 180 employees, including 50 managers, 30 professional technicians, 8 engineers with senior technical titles, and 7 engineers with intermediate technical titles. The coverage rate of bachelor degree is 100%. In recent years, the company has successively invested RMB 20 million in building a technology research and development laboratory and a physical and chemical analysis center, and newly constructed a rubber mixing workshop, a vulcanization workshop, and a rubber performance testing center. Furthermore, it has introduced advanced testing equipment such as gas chromatograph, atomic emission spectroscopy and rubber rheometer, with the total equipment investment of more than RMB 10 million. The new laboratory is capable of producing and testing rubber products.

The technical director of the company, Mr. Yan Zhongqing, a graduate of the Department of Engineering Chemistry of Tsinghua University, is one of the founders of cobalt salt localization. He has won the second prize of the National Science and Technology Progress Award, the Science and Technology Progress Award of the Ministry of Chemical Industry and other provincial and ministerial awards.



使用说明

INSTRUCTIONS FOR USE



钴盐型粘合增进剂为热硫化型粘合剂。本产品广泛用于子午线轮胎、钢编胶管、钢绕胶管、钢绳芯橡胶输送带、橡胶减震器等橡胶—金属复合制品中,能增进橡胶与金属之间的粘合强度。

The cobalt salt adhesion promoter is a heat-vulcanized adhesive. This product is widely used in rubber-metal composite products such as radial tires, rubber hoses braided with steel wire, wire spirally-wound hoses, steel cord rubber conveyor belts and rubber shock absorbers, and can improve the bonding strength between rubber and metal.

一段式炼胶本品可与其它硫化剂、防老剂等同混炼。两段或三段式炼胶本品应在二段加入。炼胶温度在120-150°C之间,确保钴盐充分分散于橡胶中。

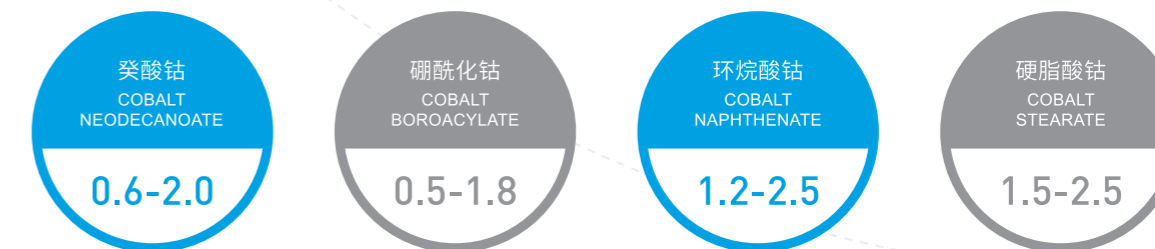
One-stage rubber mixing. This product can be mixed with other vulcanizing agents, antioxidants, etc. Two-stage or three-stage rubber mixing. This product should be added in the second stage. The mixing temperature is between 120-150 °C to ensure that the cobalt salt is fully dispersed in the rubber.

推荐使用“间甲白钴”粘合体系。该粘合体系能更好发挥本产品的粘合作用。本品对天然胶或天然胶—合成胶并用胶料都具有良好的粘合作用。

It is recommended to use the "silica-hexa-resorcinol cobalt" bonding system. The bonding system can better exert the bonding effect of this product. This product has a good adhesive effect on natural rubber or natural rubber-synthetic rubber combined sizing material.

本品粘合作用发生在硫化阶段,胶料硫化温度可控制在140-160°C。以100份橡胶为基准,其中一种的用量推荐如下(要根据不同的橡胶制品确定本品加入量):

The adhesion of this product occurs in the vulcanization stage, and the vulcanization temperature of the rubber can be controlled at 140-160 °C. Based on 100 parts of rubber, the recommended amount of one of them is as follows (the amount of this product should be determined according to different rubber products):



镍盐型粘合增进剂产品的加入量和使用条件,基本上与相应的钴盐型粘合增进剂用法相同,部分橡胶制品中,可根据实际情况在分散剂方面加以微调处理。

The addition amount and use conditions of nickel salt adhesion promoter products are basically the same as the corresponding cobalt salt adhesion promoter usage. In some rubber products, the dispersant can be fine-tuned according to the actual situation.

技术指标 TECHNICAL INDICATORS



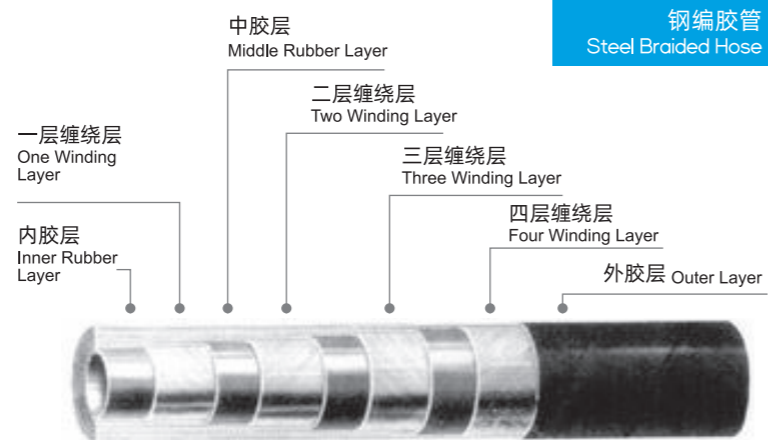
钴/镍盐粘合增进剂技术指标

品种型号 Product Name	新癸酸钴 Cobalt Neodecanoate		硼酰化钴 Cobalt Boroacylate
	ZH-20A型	ZH-20B型	ZH-23A型
外观 Appearance	蓝紫色颗粒 Blue Purple Granular	蓝紫色颗粒 Blue Purple Granular	蓝紫色颗粒 Blue Purple Granular
钴/镍含量% Cobalt Content%	20.5±0.5	20.5±0.5	22.5±0.7
软化点(环球法) °C Softening Point (Ring and Ball)	90-110 (可按客户要求)		
熔点 °C (终熔点) Melting Point		80-100	
加热减量% Heating Reduction	≤1.0	≤1.0	≤1.0
庚烷不溶物% Insoluble in Heptane			8.0±1.0
硼(定性鉴别) Boron (Qualitative Analysis)			有
灰分% Ash Content			
环烷酸含量% Naphthenic Acid Content			
环烷酸酸值mgKOH/g Acid Number			

硼酰化钴 Cobalt Boroacylate		环烷酸钴 Cobalt Naphthenate	硬脂酸钴 Cobalt Stearate	硼酰化镍 Nickel boroacylate
ZH-23B型	ZH-16	ZH-10	ZH-95	ZH-18BN
蓝紫色颗粒 Blue Purple Granular	蓝紫色颗粒 Blue Purple Granular	蓝紫色或黄褐色颗粒 Blue Purple Or Tawny Granular	红紫色颗粒 Red Purple Granular	黄绿色颗粒 Yellow Green Granular
22.5±0.5	15.5±0.5	10.5±0.5	9.6±0.6	18.5±0.5
		80-100	80-100	
≤120				
≤1.0	≤1.0	≤1.5	≤1.2	≤1.0
		≤2.0		
有	有			有
			≤13.4	
		≥80		
		190-245		



应用领域 APPLICATIONS



钢丝绳运输带 Wire Rope Conveyor Belt



子午线轮胎 Radial Tire



愿景目标 VISION & GOALS

我公司凭借良好的信誉，一流的质量，一流的服务，打造世界一流钴盐产业基地。我们以“以人为本，创新守信”的宗旨，用“我们行·行世界”的理念唱响民族工业品牌。

Our company builds a world-class cobalt salt industrial base by virtue of good reputation, first-class quality and first-class service. We adhere to the tenet of "people-orientation, innovation and trustworthiness", and sing of the national industrial brand with the concept of "YES, WE CAN".

YES, WE CAN!