KANGYU

KANGYU
康雨®管业

Pipeline System For Mining&Energy

山东康雨管业有限公司
SHANDONG KANGYU PIPE INDUSTRY CO,LTD
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山东康雨管业有限公司 2024年7月印刷

PRODUCT CATALOG

KANGYU 康雨®管业

MAKA

Better Durability

Based on the stability of polyolefin materials, the product's service life can reach up to 50 years. The exceptionally high-performance POE wear-resistant pipeline exhibits unparalleled wear resistance.

Greater Convenience

The extremely lightweight product combined with flexible connection methods is key to improving work efficiency. Depending on the different conveyed media, the pipeline can be customized in various colors for easy identification in mining operations. Unlike metal pipes, it does not require painting and is maintenance-free, significantly enhancing the efficiency and economy of mining operations.

Enhanced Safety

In complex mining environments, the product features flame resistance and anti-static properties, making conductivity crucial. While ensuring these functions, polyolefin mining pipelines can withstand a maximum pressure of up to 12.0 MPa. Safety and stability remain our constant pursuit.

ABOUT US
企业简介

山东康雨管业有限公司是一家以管材管件生产、研发、销售为一体的专精特新、国家级高新技术企业。公司位于物流之都山东临沂，占地150亩，注册资金1.2亿元，现有员工300余名，拥有国内外知名管材管件生产线80余条，年产能可达15万吨管材管件。

康雨管业拥有高效的经营管理团队和生产团队，产品均采用国内外优质原料生产,再加上严格的产品质量管理体系和先进的生产技术设备,保证了产品的优异品质。企业建立并健全了优质、高效、快捷的生产销售保障体系,深受广大客户的赞誉与信赖。"康雨" 牌全系列管道产品包括HDPE矿山/石油/燃气/给水/消防/灌溉/电力通信/城市非开挖穿越管道、PE钢丝网骨架管道、UHMW-PE超高分子量聚乙烯管道、聚乙烯双壁波纹管、中空壁缠绕管道、MPP/ABS/CPVC电力通信管、HDPE电熔管件、PVC-U/PVC-M给水/化工/矿山/养殖/灌溉/电力通信管道、冷热水PP-R管材管件、PE-RT/PB采暖管材管件等。

企业运行严格执行ISO9001三体系标准，拥有完善的检测机制及高标准实验室，通过欧盟CE认证、德国TüV莱茵认证、法国BV认证、瑞士SGS、煤矿用MA/非煤矿KA认证等多方权威部门检测认证，使产品品质更上一个新台阶。企业具有较强的设计和开发能力，不断加大新产品的开发力度,提高产品的质量与科技含量,以满足市场用户的需求。

一流的生产设备，高素质的员工队伍，先进的管理制度是康雨管业不断发展壮大的坚强基石。公司坚持走投入、创新、再发展的道路，从原来单一的产品发展到现在的系列化，多元化，已成为一家集科研、开发、生产、营销、贸易、服务等综合为一体的高科技现代化企业。满怀激情的康雨人，始终秉承技术立本，以市场为导向，铸就百年企业的伟大梦想，力争使企业跻身于世界建材行业先列。

产品压力范围涵盖：
负压0.097MPa-超高正压12.0MPa
聚烯烃复合管道

产品口径范围涵盖：
Φ12-Φ1600大口径150mm超厚壁管道

Shandong Kangyu Pipe Industry Co., Ltd., located in Linyi, Shandong, China, covers an area of over 100,000 square meters and employs more than 300 people. We are a specialized integrated pipeline company engaged in the production, R&D and sales of pipes and fittings. With over 80 well-known domestic and international production lines, our annual production capacity reaches up to 150,000 tons.

At Kangyu Pipe Industry, we pride ourselves on having an efficient management and production team. Our products are manufactured using high-quality raw materials from both domestic and international sources, ensuring superior quality through a stringent quality management system and advanced production technology. We have established a high-quality, efficient, and rapid production and after-sales system, earning widespread praise and trust from our customers. Our "Kangyu" brand offers a comprehensive range of pipeline products, including HDPE pipes for water supply/ fire protection/gas/mining/oil/irrigation/ power and communication cable protection/urban trenchless crossing pipes; PE steel mesh skeleton pipes; PE double-wall corrugated pipes; hollow wall winding pipes; MPP/ABS/CPVC pipes for power and communication cable protection;HDPE electrofusion fittings; PVC-U/PVC-M pipes for water supply/chemicals/mining/ aquaculture/ irrigation/ electrical and communication cables protection; hot and cold water PP-R pipes and fittings; and PE-RT/PB heating pipes and fittings.

Pressure range : negative pressure 0.097MPa to ultra-high positive pressure 12.0MPa polyolefin composite pipes

Diameter range :Φ12-Φ1600 large diameter 150mm ultra-thick wall pipes.

Our company strictly adheres to ISO9001 standards, with comprehensive testing mechanisms and high-standard laboratories. We have obtained multiple authoritative certifications, including EU CE certification, German TüV Rheinland certification, French BV certification, Swiss SGS certification, and China's MA certification for coal mine use/non-coal mine KA certification, elevating our product quality to a new level. With strong design and development capabilities, we continually increase the development of new products and enhance product quality and technological content to meet market demands.

First-class production equipment, a highly qualified workforce, and advanced management systems are the strong foundations for our continuous growth and development. We adhere to the path of investment, innovation, and further development, evolving from a single product line to a series of diversified products. We have now become a high-tech modern enterprise integrating scientific research, development, production, marketing, trade, and services. With great enthusiasm, we uphold the principle of technology as our foundation and a market-oriented approach, striving to build a century-old enterprise and position ourselves among the leading companies in the global building materials industry.

20 Years
Experience

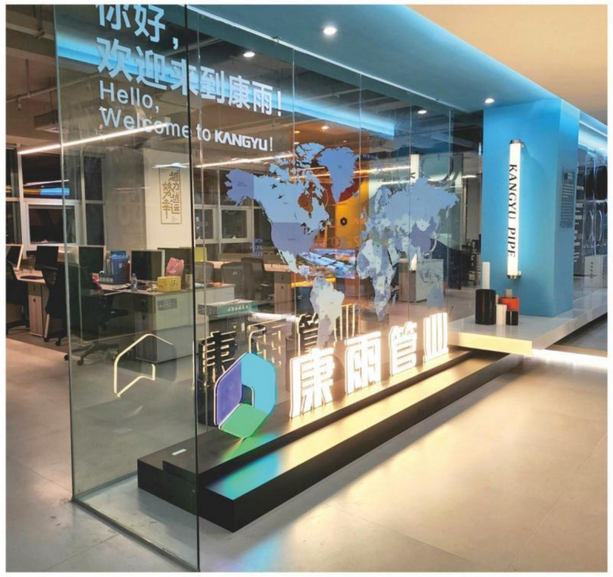
100k+ ㎡
Site area

300+
Employees

80+
Production lines for pipes and fittings

150k+ tons
annual production capacity of pipes and fittings

Company exhibition hall



Company Profile

Kangyu Pipe industry, as a professional new mining energy pipeline manufacturer, has been growing in the years of development and expansion. With excellent quality and professional service, it has won the wide recognition of the consumers, and has been highly rec -ognized by the market.

Company culture

Openness Happiness Development Win-win Cooperation

01

员工智库

康雨管业吸纳全国行业精英，推崇正直无私的人格，提倡严谨务实的工作作风，注重培养员工的主动性、领导能力及团队协作精神。员工高度的工作热情和积极性为他们创造了更好的发展。

Employee Knowledge Base:
Kangyu Pipeline attracts industry elites from across the country, upholding the values of integrity and selflessness. We advocate a meticulous and pragmatic work style, emphasizing the cultivation of employees' initiative, leadership skills, and team spirit. The high work enthusiasm and positivity of our employees have created better development opportunities for them.

Talent Concept:
"Prospering the enterprise through talent" is the talent concept of Kangyu Pipeline. Employees are the most valuable resource of Kangyu. We are committed to creating an ideal working environment to attract, develop, and retain the best talent. Our employees enjoy a prestigious status in the industry, vast development opportunities, and challenging work. They receive generous rewards while achieving outstanding performance.

人才观

“人才兴企”是康雨管业的人才观，员工是康雨最为宝贵的资源。我们始终全力创造一个理想的工作环境，以吸引、发展和保留最优秀的人才。我们的员工享有行业尊崇的地位、广阔的发展空间及具有挑战性的工作，并在取得卓越绩效的同时获得丰厚回报。

02

03

经营目标

在“新型管道专业供应商”的形象中，致力发展为管道行业品质品牌，并通过锲而不舍的艰苦努力，使我们逐步成长为优秀名牌企业。

Business Goals:
Under the image of being a "Professional Supplier of New Pipelines," we are committed to developing into a quality brand in the pipeline industry. Through relentless and hard work, we aim to gradually grow into an excellent and renowned enterprise.

Core Values:
Coexistence and mutual benefit, people-oriented, achieving great success! Harmonious mutual benefit and coexistence with customers are the keys to victory. Kangyu must enable every partner to create value through our enterprise; we will never engage in one-sided transactions.

核心价值观

共存共赢、以人为本、成就大业！和谐共赢，与客户共存、共赢，方为制胜之道。康雨必须让每一位合作伙伴因为企业而创造价值，我们永远不会做单赢的买卖。

04

COMPLETE SOLUTION
RIGHT THE FIRST TIME

TO PROVIDE YOU WITH PERFECT WORRY-FREE PIPE SOLUTIONS

Equipment partners

battenfeld-cincinnati　JWELL

FANGLI　通达机械　HAITIAN INTERNTIONAL

Raw material partners

SINOPEC 中国石化　Borouge　lyondellbasell　WANHUA 万华　DONGMING PETROCHEMICAL 东明石化

CREATING A COMPREHENSIVE PIPELINE SYSTEM SOLUTION

Kangyu Pipe,a first-class product supplier provides high-quality pipe and fittings products for the market . It has extensive cooperation with manufacturers and customers, and has strong comprehensive enterprise strength. It can provide a complete set of services from design, manufacturing, transportation, and technical guidance.
International top-notch production equipment, comprehensive enterprise management system, and strict quality control system can customize comprehensive pipeline system solutions for customers.

1. The company has invested heavily in introducing industry-leading production and testing equipment, ensuring the excellent performance of every product through strict quality management and precise production testing processes.

2. We use plastic pipe specialized materials certified by authoritative institutions to produce products, ensuring their purity, health, and environmental protection. We focus on quality from the source and control product performance.

3. The company has a professional mold design team that continuously improves the detailed design of products, improves and upgrades products through market feedback, and meets market demand.

4. Enterprises hire professional pipeline technology experts, purchase specialized equipment, conduct research and practice on various aspects such as pipeline performance and function, and have strong technical support.

5. Enterprises provide diversified customized services, including customized services for special models and specifications, to meet the personalized needs of different consumers.

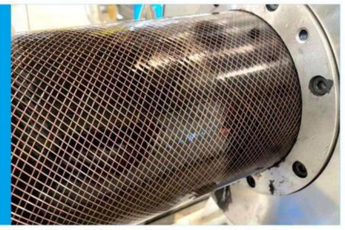
6. We have a diverse product architecture and several series of products to meet the needs of home tooling customers. The product has unique temperature and pressure resistance characteristics, combining practicality and aesthetics, providing a new water purification experience.

7. The introduction of foreign intelligent warehouse management system, through the combination of the Internet and logistics information, can quickly carry out warehouse distribution, reduce costs, improve work efficiency, improve logistics distribution efficiency, and meet the distribution requirements of dealers across the country.

8. The enterprise establishes a comprehensive modern management system, optimizes internal resources, cooperates reasonably, and comprehensively reduces costs. Its products are highly cost-effective, providing customers with a perfect comprehensive pipeline solution.

9. Relying on strong technological capabilities, enterprises continuously strengthen the research and innovation of core technologies, improve product supply chains, and achieve large-scale production.

10. Enterprises adopt various effective measures and strategies to comprehensively carry out market development and customer expansion work, and provide high-quality services and a good attitude to do a good job in customer service and customer maintenance.



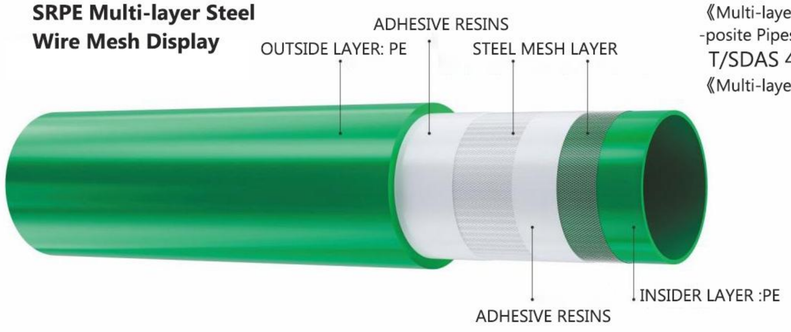
MINING STEEL WIRE MESH SKELETON PE(POLYETHYLENE) COMPOSITE PIPELINE

Product Introduction

Steel wire mesh skeleton pe composite pipe is an improved new type of steel skeleton plastic composite pipe. This type of pipe is also known as SRTP pipe. This new type of pipeline is made of high-strength steel wire mesh skeleton and thermoplastic polyethylene as raw materials. Steel wire winding mesh is used as the skeleton reinforcement of polyethylene plastic pipe, and high-density polyethylene (HDPE) is used as the matrix. High performance HDPE modified bonding resin is used to tightly connect the steel wire skeleton with the inner and outer high-density polyethylene layers, making it have excellent composite effect. Due to the high-strength steel wire reinforcement wrapped in continuous thermoplastic, this composite pipe overcomes the disadvantages of both steel and plastic pipes while maintaining their respective advantages.

Product Structure

SRPE Multi-layer Steel Wire Mesh Display



Implementation Standards

MT 181-1988
《Safety Performance Inspection Specification for Plastic Pipes Used in Underground Coal Mines》
MT 558.1-2005
《Plastic Pipes Used in Underground Coal Mines - Part 1: Polyethylene Pipes》
AQ 1071-2009
《Safety Technical Requirements for Non-metallic Gas Transport Pipes Used in Coal Mines》
CJ/T 189-2007
《Steel Wire Mesh Reinforced Plastic (Polyethylene) Composite Pipes and Fittings》
CJ/T 537-2019
《Multi-layer Steel Wire Wound Modified Polyethylene Wear-resistant Com -posite Pipes》
T/SDAS 493-2022
《Multi-layer Steel Wire Mesh Reinforced Polyethylene Composite Pipes》

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Product Specifications

Steel wire mesh skeleton PE (polyethylene)pipe used for Liquid under the shaft in the coal mine

Nominal outer diameter (dn/mm)	Nominal pressure /MPa					
	1.0	1.25	1.6	2.0	2.5	3.5
	Nominal wall thickness en/mm					
50			4.5	5.0	5.5	5.5
63			4.5	5.0	5.5	6.0
75			5.0	5.0	5.5	6.0
90			5.5	5.5	7.5	8.5
110	5.5	5.5	7.0	7.0	9.0	9.5
140	5.5	5.5	8.0	8.5	10.0	10.5
160	6.0	6.0	9.0	9.5	11.0	12.5
200	6.0	6.0	9.5	10.5	11.0	12.5
225	8.0	8.0	10.0	10.5	12.5	
250	10.5	10.5	12.0	12.0	12.5	
315	11.5	11.5	13.0	13.0		
355	12.0	12.0	14.0			
400	12.5	12.5	15.0			
450	13.5	13.5	16.0			
500	15.5	15.5	18.0			
560	20.0					
630	23.0					

Steel wire mesh skeleton PE (polyethylene)pipe used for discharging mashgas under the shaft in the coal mine

Nominal outer diameter (dn/mm)	Nominal pressure /MPa
	-0.097
	min. Nominal wall thickness en/mm
50	5.5
63	5.5
75	5.5
90	5.5
110	7.5
125	7.5
140	8.0
160	9.0
200	9.5

Nominal outer diameter (dn/mm)	Nominal pressure/MPa
	-0.097
	min. Nominal wall thickness en/mm
225	11.0
250	12.0
315	15.0
355	17.0
400	19.0
450	21.5
500	24.0
560	26.5
630	30.0

Steel Wire Mesh Reinforced PE (Polyethylene) Gas Pipe for Underground Coal Mines

Nominal outer diameter (dn/mm)	Nominal pressure/MPa			
	0.6	0.8	1.0	1.25
	Nominal wall thickness en/mm			
50	4.5	5.0	5.5	5.0
63	4.5	5.0	5.5	5. 5
75	5.0	5.0	5.5	6.0
90	5.5	5.5	5.5	6.0
110	7.0	7.0	7.5	8.5
140	8.0	8.5	9.0	9.5
160	9.0	9.5	10.0	10.5
200	9.5	10.5	11.0	12.5
225	10.0	10.5	11.0	
250	12.0	12.0	12.5	
315	13.0	13.0		
355	14.0			
400	15.0			
450	16.0			
500	18.0			

Mining High-Pressure Steel Wire Mesh Reinforced PE (Polyethylene) General Pipe

Nominal outer diameter (dn/mm)	Nominal pressure/MPa			
	2.0	2.5	3.5	4.0
	Minimum Wall Thickness /mm			
63				6.0
75				9.5
90				10.0
110				12.0
125				12.0
160				13.0
200				15.0
225			15.5	16.0
250			16.0	16.5
315		17.0	17.0	17.5
355	14.5	17.5	17.5	18.0
400	15.0	18.5	18.5	19.0

Expanded Dimensions for Mining Multi-layer Steel Wire Mesh Reinforced PE (Polyethylene) Composite Pipe

Nominal outer diameter (dn/mm)	Nominal pressure /MPa														
	0.8	1.0	1.25	1.6	2.0	2.5	3.0	3.5	4.0	5.0	6.3	7.0	8.0	9.0	10.0
	Nominal wall thickness en/mm														
50				4.5	5.0	5.5	5.5	5.5	6.0	8.5	9.0	10.0	10.0	10.0	10.0
63				4.5	5.0	5.5	5.5	5.5	6.5	8.5	9.0	10.0	10.0	10.0	10.0
75				5.0	5.0	5.5	6.0	6.0	9.5	9.5	9.5	10.5	10.5	10.5	11.5
90				5.5	5.5	5.5	6.0	6.0	10.0	10.5	10.5	11.5	11.5	11.5	12.0
110		5.5	5.5	7.0	7.0	7.5	8.5	8.5	11.0	12.0	12.0	12.0	12.0	13.0	13.0
125		5.5	5.5	7.5	8.0	8.5	9.5	9.5	11.0	12.0	12.0	13.0	13.0	13.0	15.0
140		5.5	5.5	8.0	8.5	9.0	9.5	9.5	11.0	12.0	13.0	15.0	15.0	15.0	15.0
160		6.0	6.0	9.0	9.5	10.0	10.5	10.5	11.0	12.0	14.0	15.0	15.0	15.0	15.0
180		6.0	6.0	9.5	10.5	11.0	12.0	12.5	13.0	13.0	14.0	15.0	15.0	15.0	15.0
200		6.0	6.0	9.5	10.5	11.0	12.0	12.5	13.0	13.0	15.0	15.0	15.0	15.0	
225		8.0	8.0	10.0	10.5	11.0	12.0	13.0	13.0	13.0	15.0				
250	8.0	10.5	10.5	12.0	12.0	12.5	14.0	14.0	14.0	15.0					
280	9.5	11.0	11.0	13.0	13.0	15.0	15.0	17.0	17.0	18.0					
315	9.5	11.5	11.5	13.0	13.0	15.0	15.0	18.0	18.0	19.0					
355	10.0	12.0	12.0	14.0	14.0	17.0	17.0	19.0	19.0						
400	10.5	12.5	12.5	15.0	16.0	17.0	17.0	19.0							
450	11.5	13.5	13.5	16.0	18.0	18.0	19.0								
500	12.5	15.5	15.5	18.0	19.0	22.0									
560	17.0	20.0	20.0	22.0	22.0										
630	20.0	23.0	23.0	26.0	26.0										
710	23.0	26.0	28.0	30.0											
800	27.0	30.0	32.0	34.0											
900	29.0	33.5	35.0	38.0											
1000	34.5	37.0	40.0	45.0											
1200	38.0	40.0	43.0												

Note: Customizable models and pressure ratings available upon customer request.

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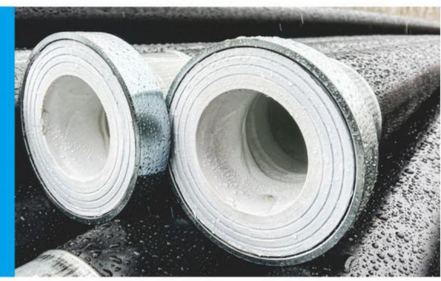
Product Performance

No.	Item	Specification
1	Short-term Static Liquid Pressure Test	According to the CJ/T189-2007 standard, test temperature 20°C, the pipe should withstand 2 times the nominal pressure for liquid pipes and 3.2 times the nominal pressure for gas pipes, maintaining the pressure for 1 hours without rupture or leakage.
		According to the CJ/T189-2007 standard, test temperature 80°C, the pipe should withstand 1.2 times the nominal pressure for liquid pipes and 1.92 times the nominal pressure for gas pipes, maintaining the pressure for 165 hours without rupture or leakage.
		According to the CJ/T537-2019 standard, test temperature 60°C, the pipe should withstand 1.05 times the nominal pressure, maintaining the pressure for 165 hours without rupture or leakage.
2	Burst Pressure	test temperature 20°C, with the pressure increased until bursting within 60 to 70 seconds. The bursting pressure is greater than 3 times the nominal pressure.
3	Vacuum Pressure Resistance	Pipe at 0.097MPa negative pressure, maintained for 100h, no delamination and rupture.
4	Pressure Crack Resistance	Within 10-15 seconds, compress the pipe to 50% of its nominal outer diameter without any cracks or fractures.
5	Peel Strength	≥100N/cm
6	Surface Resistivity	Water supply and drainage pipe: The average value of the surface resistance of the pipe's outer wall should not exceed 1×10^10Ω.
		Gas pipe (positive pressure): The average value of the surface resistance of the pipe's outer wall should not exceed 1×10^9Ω.
		Spraying pipe: The average value of the surface resistance of the pipe's inner&outer wall should not exceed 1×10^9Ω.
		Gas pipe (negative pressure): The average value of the surface resistance of the pipe's inner&outer wall should not exceed 1×10^7Ω.
		Gas extraction pipes: The average value of the surface resistance of the pipe's inner&outer wall should not exceed 1x10^7Ω.
7	Alcohol Flame Test	The average time of flame combustion for 6 samples should not exceed 3 seconds, and the flame combustion time for any single sample should not exceed 10 seconds.
		The average time of non-flame combustion for 6 samples should not exceed 20 seconds, and the non-flame combustion time for any single sample should not exceed 60 seconds.

» MINING STEEL WIRE MESH SKELETON POLYOLEFIN CO-EXTRUDED POE WEAR-RESISTANT PIPE



Product Introduction

Wear-resistant pipes are an important branch of the pipeline industry, primarily used for the transport of gases, slurries, and other materials. Due to the high hardness, fast flow rate, and large volume of the transported media, the impact, abrasion, and corrosion from the media can lead to fatigue and even wear through the pipe walls over time. Wear-resistant pipes effectively reduce these negative effects.Wear-resistant pipes find extensive applications in various industries:Chemical Industry: for transporting coal dust, silica powder, salt slurry, alkali slurry and other solid-liquid mixtures.Power Generation: in processes such as ash removal, slag discharge, powder conveying, powder recycling, and desulfurization in thermal power plants.Metallurgy: for long-distance transportation of concentrates, tailings, mineral and solvent processes in ore dressing plants.Cement: for transporting raw materia slurry in wet rotary kiln production lines, coal powder, feeding in elevators, pneumatic transport of finished cement, and concrete conveyance. Food Industry: for conveying wheat, grains, husks, etc.,

Product Performance

ADDRESSING PRESSURE CONCERNS:

By utilizing high-strength special materials as reinforcement layers, the maximum pressure for certain diameters can reach 12 MPa; The Static Liquid Pressure of the pipes meets two times the working pressure for one hour. The burst pressure of the pipes meets three times the working pressure.

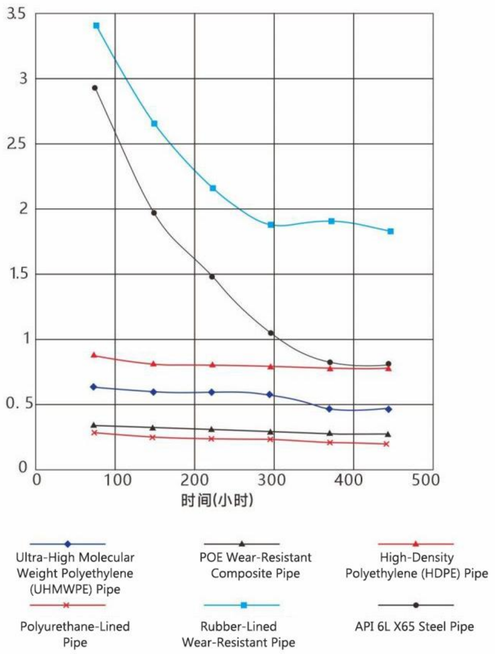
SOLVING INSTALLATION AND MAINTENANCE CONVENIENCE

The pipes are composed of several high molecular weight materials, making them lightweight – only a quarter of the weight of steel pipes. Additionally, the flexible structure of the pipes requires low installation prerequisites.

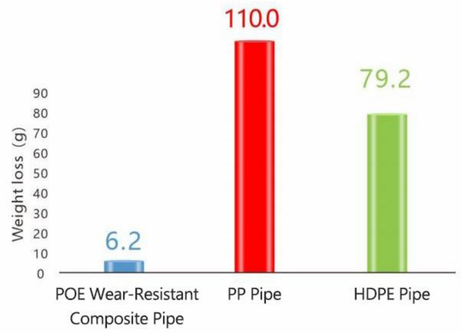
RESOLVING WEAR AND COARSE PARTICLE IMPACT RESISTANCE

By employing a special process, the inner layer of the pipes is coated with a composite of POE high molecular weight polyolefin material. This material exhibits excellent physical and mechanical properties with an extremely low surface friction coefficient. Its wear resistance surpasses that of bimetal pipes by three times, UHMWPE ultra-high molecular weight pipes by eight times, HDPE pipes by 15 times, and steel pipes by 100 times. Moreover, it demonstrates outstanding impact resistance and is corrosion-resistant to various organic solvents.

Wear-Resistance Performance Comparison



Evaluation of Abrasion Resistance in Pipe Form



Measured Annual Erosion Rates of Pipes Made from Six Different Materials

Material Names	Rubber-Lined Wear-Resistant Pipe	API 6L Steel Pipe	HDPE Pipe	Ultra-High Molecular Weight Polyethylene (UHMWPE) Pipe	POE Wear-Resistant Composite Pipe	Polyurethane -Lined Pipe
Erosion Rates	1.8263	0.7913	0.7686	0.4459	0.2465	0.1976

Evaluation Criteria	POE Wear-Resistant Composite Pipe	Ultra-High Molecular Weight Polyethylene (UHMWPE) Pipe	HDPE Pipe	Steel Pipe
Abrasion Resistance	+++	++	+	-
Chemical Resistance	+++	++	++	-
Mechanical Properties	++	++	++	+++
Flexibility	+++	++	++	-
Ease of Installation	+++	+	+++	-
Heat Resistance	+	++	++	+++

Cost comparison

Economic Comparison of POE Co-extruded Polyolefin Reinforced Wear-Resistant Pipes with Other Wear-Resistant Pipe Products Factors to consider

Initial Purchase Cost: The price difference between various types of wear-resistant pipes can be significant. The initial purchase cost of POE co-extruded polyolefin composite reinforced wear-resistant pipes is generally higher than rubber pipes and PE pipes, but lower than steel pipes and cast iron pipes.

Installation Cost: The lightweight and easy installation of POE co-extruded polyolefin composite reinforced wear-resistant pipes can reduce installation costs.

Maintenance Cost: The abrasion and corrosion resistance of POE co-extruded polyolefin composite reinforced wear-resistant pipes are superior to traditional wear-resistant pipe products, which can extend their service life and reduce maintenance costs.

Lifecycle Cost: Considering the initial purchase cost, installation cost, and maintenance cost, the lifecycle cost of POE co-extruded polyolefin composite reinforced wear-resistant pipes is often lower than that of traditional wear-resistant pipe products.

steel mesh skeleton for mining depends on specific application scenarios and usage requirements.In terms of initial purchase cost, the initial purchase cost of POE co-extruded polyolefin composite reinforced wear-resistant pipes is higher than rubber pipes and PE pipes, but lower than steel pipes and cast iron pipes.In terms of installation cost, POE co-extruded polyolefin composite reinforced wear-resistant pipes have a significant advantage due to their lightweight and ease of installation.In terms of maintenance cost, the abrasion and corrosion resistance of POE co-extruded polyolefin composite reinforced wear-resistant pipes are superior to traditional wear-resistant pipe products, which can extend their service life and reduce maintenance costs.Considering the initial purchase cost, installation cost, and maintenance cost, the comprehensive cost of POE co-extruded polyolefin reinforced wear-resistant pipes with a steel mesh skeleton for mining over the entire lifecycle is significantly lower than that of traditional wear-resistant pipe products.

Product Structure

DISPLAY OF POE CO-EXTRUDED POLYOLEFIN REINFORCED WEAR-RESISTANT PIPES WITH STEEL MESH SKELETON FOR MINING

Product Specifications

Nominal outer diameter (dn/mm)	Nominal pressure /MPa														
	pressure	0.8	1.0	1.25	1.6	2.0	2.5	3.0	3.5	4.0	5.0	6.3	7.0	8.0	9.0	10.0
90	Total Wall Thickness		8.0	8.0	8.0	8.5	8.5	9.0	9.0	13.0	13.5					
	Wear Layer Thickness		2.0	2.0	2.0	2.5	2.5	2.5	2.5	3.0	3.0					
110	Total Wall Thickness		8.0	8.0	9.5	10.0	10.5	11.5	11.5	14.0	15.0	15.0	15.0	15.5	16.5	16.5
	Wear Layer Thickness		2.0	2.0	2.0	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.5	3.5	3.5
125	Total Wall Thickness		8.0	8.0	10.0	11.0	11.5	12.5	12.5	14.0	15.0	15.0	15.0	16.5	16.5	18.5
	Wear Layer Thickness		2.0	2.0	2.0	2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0	3.5	3.5	3.5
140	Total Wall Thickness		8.0	8.0	10.5	11.5	12.0	12.5	12.5	14.0	15.0	16.0	16.0	18.5	18.5	18.5
	Wear Layer Thickness		2.0	2.0	2.0	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.5	3.5	3.5
160	Total Wall Thickness		9.0	9.0	12.0	13.0	13.5	14.0	14.0	14.5	15.5	17.5	17.5	19.0	19.0	19.0
	Wear Layer Thickness		2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.5	3.5
180	Total Wall Thickness		9.0	9.0	12.0	13.5	14.0	14.5	15.0	15.0	15.5	18.0	18.0	19.0	19.0	19.0
	Wear Layer Thickness		2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.5	3.5
200	Total Wall Thickness		9.0	9.0	12.5	14.0	14.5	15.5	16.0	16.5	16.5	18.5	18.5	19.0	19.0	
	Wear Layer Thickness		2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.5	3.5	3.5	
225	Total Wall Thickness		11.0	11.0	13.0	14.0	14.5	15.5	16.5	16.5	16.5	19.0	19.0			
	Wear Layer Thickness		2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.5			
250	Total Wall Thickness	11.0	13.5	13.5	15.0	15.0	16.0	17.5	17.5	17.5	18.5					
	Wear Layer Thickness	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.5					
280	Total Wall Thickness	13.0	14.5	14.5	16.5	17.0	19.0	19.0	21.0	21.5	22.5					
	Wear Layer Thickness	2.5	3.0	3.0	3.0	3.5	3.5	3.5	4.0	4.0	4.0					
315	Total Wall Thickness	13.0	15.0	15.0	16.5	17.0	19.0	19.0	22.0	22.5						
	Wear Layer Thickness	2.5	3.0	3.0	3.0	3.5	3.5	3.5	4.0	4.0						
355	Total Wall Thickness	13.5	15.5	15.5	17.5	18.0										
	Wear Layer Thickness	3.0	3.0	3.0	3.5	3.5										
400	Total Wall Thickness	14.0	16.0	16.0	18.5											
	Wear Layer Thickness	3.0	3.5	3.5	3.5											
450	Total Wall Thickness	15.5	17.5	17.5	20.0											
	Wear Layer Thickness	3.0	3.5	3.5	4.0											
500	Total Wall Thickness	16.5	19.5	19.5	22.0											
	Wear Layer Thickness	3.5	3.5	3.5	4.0											
560	Total Wall Thickness	21.0	24.0	24.0	26.0											
	Wear Layer Thickness	4.0	4.0	4.0	4.0											
630	Total Wall Thickness	24.0	27.0	27.0	30.0											
	Wear Layer Thickness	4.0	4.0	4.0	4.0											

Note: The total wall thickness of the pipe includes the wear layer thickness. The above models are standard models and can be customized according to requirements.

Connection Method

Electro-fusion Flange Connection

Pipeline connection surface display

Nominal outer diameter (dn/mm)	Nominal pressure MPa											
	0.8	1.0	1.25	1.6	2.0	2.5	3.0	3.5	4.0	5.0	6.3	6.8
50		○	○	○	○	○	•	•	•	•	•	•
63		○	○	○	○	○	•	•	•	•	•	•
75		○	○	○	○	○	•	•	•	•	•	•
90		○	○	○	○	○	•	•	•	•	•	•
110		○	○	○	○	○	•	•	•	•	•	•
125		○	○	○	○	○	•	•	•	•	•	•
140		○	○	○	○	○	•	•	•	•	•	•
160		○	○	○	○	○	•	•	•	•	•	•
180		○	○	○	○	○	•	•	•	•	•	•
200		○	○	○	○	○	•	•	•	•	•	•
225	○	○	○	○	○	○	•	•	•	•	•	
250	○	○	○	○	○	○	•	•	•	•		
280	○	○	○	○	○	○	•	•	•	•		
315	○	○	○	○	○	○	•	•	•	•		
355	○	○	○	○	•	•	•	•	•			
400	○	○	○	○	•	•	•	•				
450	○	○	○	○	•	•	•					
500	○	○	○	○	•	•						
560	○	○	○	○	•							
630	○	○	○	○	•							

Note: This connection method is suitable for mining steel wire mesh skeleton PE (polyethylene) composite pipeline connections.
• This pressure level requires a custom electro-fusion flange.

Flanged Pipe Body Connection

Pipeline connection surface display

Nominal outer diameter (dn/mm)	Nominal pressure MPa									
	0.8	1.0	1.25	1.6	2.0	2.5	3.0	3.5	4.0	5.0
50	○	○	○	○	○	○	○	○	○	○
63	○	○	○	○	○	○	○	○	○	○
75	○	○	○	○	○	○	○	○	○	○
90	○	○	○	○	○	○	○	○	○	○
110	○	○	○	○	○	○	○	○	○	○
125	○	○	○	○	○	○	○	○	○	
140	○	○	○	○	○	○	○	○	○	
160	○	○	○	○	○	○	○	○	○	
180	○	○	○	○	○	○	○	○		
200	○	○	○	○	○	○	○	○		
225	○	○	○	○	○	○	○			
250	○	○	○	○	○	○				
280	○	○	○	○	○					
315	○	○	○	○	○					
355	○	○	○	○	○					
400	○	○	○	○	○					
450	○	○	○	○	○					
500	○	○	○	○	○					
560	○	○	○	○	○					
630	○	○	○	○	○					

Note: This connection method is suitable for mining steel wire mesh skeleton PE (polyethylene) composite pipelines and mining steel wire mesh skeleton polyolefin co-extruded POE wear-resistant pipelines.

Connection Method

Crimped Flange Connection

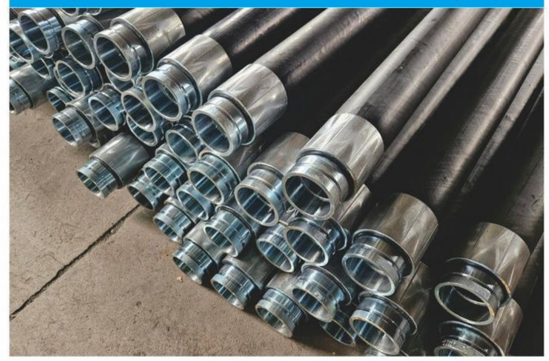
Pipeline connection surface display

Nominal outer diameter (dn/mm)	Nominal pressure MPa						
	1.6	2.0	2.5	3.0	3.5	4.0	5.0
50	○	○	○	○	○	○	○
63	○	○	○	○	○	○	○
75	○	○	○	○	○	○	○
90	○	○	○	○	○	○	○
110	○	○	○	○	○	○☆	○☆
125	○	○	○	○	○	○☆	
140	○	○	○	○	○	○☆	
160	○	○	○	○	○	○☆	
180	○	○	○	○	○	○☆	
200	○	○	○	○	○	○☆	
225	○	○	○	○	○	○☆	
250	○	○	○	○	○☆	○☆	
280	○	○	○☆	○☆	○☆		
315	○	○☆	○☆				

Note: This connection method is suitable for mining steel wire mesh skeleton PE (polyethylene) composite pipeline connections.
☆This pressure level requires an inner lining crimped core.

Quick Crimp Clamp Connection

Pipeline connection surface display



Nominal outer diameter (dn/mm)	Nominal pressure MPa					
	1.6	2.0	2.5	3.0	3.5	4.0
50	○	○	○	○	○	○
63	○	○	○	○	○	○
75	○	○	○	○	○	○
90	○	○	○	○	○	○
110	○	○	○	○	○	○☆
125	○	○	○	○	○	○☆
140	○	○	○	○	○	○☆
160	○	○	○	○	○	○☆
180	○	○	○	○	○	○☆
200	○	○	○	○	○	○☆
225	○	○	○	○	○	○☆
250	○	○	○	○	○☆	○☆
280	○	○☆	○☆	○☆	○☆	
315	○☆	○☆	○☆			

Note: This connection method is suitable for mining steel wire mesh skeleton PE (polyethylene) composite pipeline connections.
☆This pressure level requires an inner lining crimped core.

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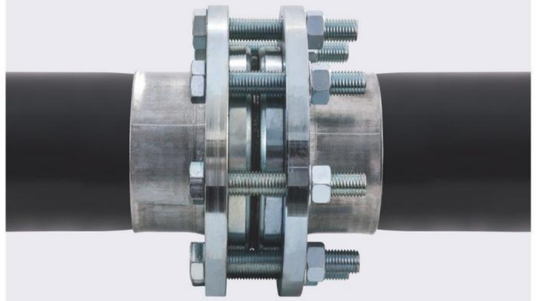
Connection Method

Riveted | Hot Formed | Double Seal Connection



Pipeline connection surface display

Nominal outer diameter (dn/mm)	Nominal pressure MPa							
	1.6	2.0	2.5	3.0	3.5	4.0	5.0	6.3
110	○	○	○	○	○	○	○	●
125	○	○	○	○	○	○	●	
140	○	○	○	○	○	○	●	
160	○	○	○	○	○	○	●	
180	○	○	○	○	○	○	●	
200	○	○	○	○	○	○	●	
225	○	○	○	○	○	○	●	
250	○	○	○	○	○	○	●	
280	○	○	○	○	○	●		
315	○	○	○	○	○	●		

Note: This connection method is suitable for mining steel wire mesh skeleton PE (polyethylene) composite pipeline connections.
The "○" symbol indicates the riveted enhanced double seal connection, and the "●" symbol indicates the hot-formed enhanced double seal connection.

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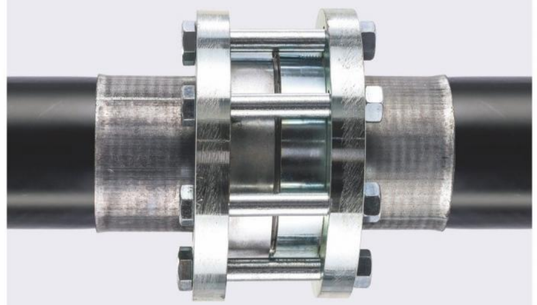
Stacked Crimp Flange Connection



Pipeline connection surface display

Nominal outer diameter (dn/mm)	Nominal pressure MPa									
	2.5	3.0	3.5	4.0	5.0	6.3	7.0	8.0	9.0	10.0
110						○	○	○	○	○
125					○	○	○	○	○	○
140					○	○	○	○	○	○
160					○	○	○	○	○	
180				○	○	○	○	○	○	
200				○	○	○	○	○	○	
225				○	○	○	○			
250			○	○	○					
280	○	○	○	○	○					
315	○	○	○	○	○					

Note: This connection method is suitable for mining steel wire mesh skeleton PE (polyethylene) composite pipelines and mining steel wire mesh skeleton polyolefin co-extruded POE wear-resistant pipelines.

» POLYETHYLENE PE PIPE FOR MINING

Product Introduction

Polyethylene pipe for mining is processed by polyethylene-resin. Through the addition of polymer additives, the properties of flame retardant, antistatic and superconducting electricity are realized on the basis of conventional polyethylene-PE pipe, which meets the standard of MT 558.1-2005 plastic pipe for underground coal mine. Mining polyethylene PE pipe light weight, only 1/8 of the weight of the steel pipe, can withstand the erosion of a variety of chemical media, service life of 50 years, daily maintenance free. The pipe wall friction coefficient is low, the conveying fluid resistance is small, the wear resistance is 4 times that of the steel pipe, and the conveying capacity can be increased by 30% compared with the steel pipe under the same conditions. The material itself has excellent ductility and good flexibility, which is more conducive to installation than the steel pipe in the well and in the narrow space. It can be connected by the bending property of the pipe itself, which greatly improves the convenience of construction.

Implementation Standards

MT 558.1-2005
《Plastic pipe for underground coal mine Part 1: Polyethylene pipe》
MT181-1988
《Coal mine plastic pipe safety performance inspection code》
AQ 1071-2009
《Non-metal gas pipe for coal mine safety technical requirements》
GB/T13663.2-2018
《Polyethylene (PE) piping system for water supply - Part 2: Pipes》

KANGYU 康雨管业

PE100 polyethylene pipe for underground coal mine

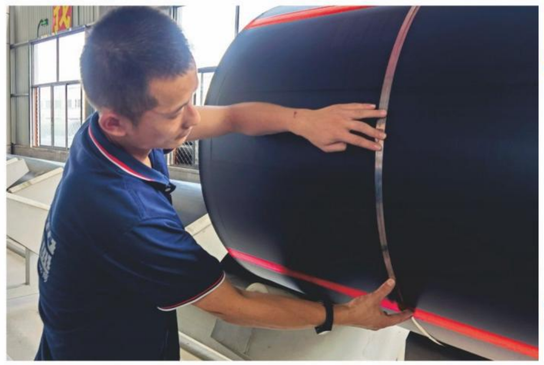
Nominal outer diameter (dn/mm)	Nominal wall thickness en/mm							
	Standard dimension ratio							
	SDR9	SDR11	SDR13.6	SDR17	SDR21	SDR26	SDR33	SDR41
	Pipe series							
	S4	S5	S6.3	S8	S10	S12.5	S16	S20
	Nominal pressure /MPa							
	2.0	1.6	1.25	1.0	0.8	0.6	0.5	0.4
16	2.3	—	—	—	—	—	—	—
20	2.3	2.3	—	—	—	—	—	—
25	3.0	2.3	2.3	—	—	—	—	—
32	3.6	3.0	2.4	2.3	—	—	—	—
40	4.5	3.7	3.0	2.4	2.3	—	—	—
50	5.6	4.6	3.7	3.0	2.4	2.3	—	—
63	7.1	5.8	4.7	3.8	3.0	2.5	—	—
75	8.4	6.8	5.6	4.5	3.6	2.9	—	—
90	10.1	8.2	6.7	5.4	4.3	3.5	—	—
110	12.3	10.0	8.1	6.6	5.3	4.2	—	—
125	14.0	11.4	9.2	7.4	6.0	4.8	—	—
140	15.7	12.7	10.3	8.3	6.7	5.4	—	—
160	17.9	14.6	11.8	9.5	7.7	6.2	—	—
180	20.1	16.4	13.3	10.7	8.6	6.9	—	—
200	22.4	18.2	14.7	11.9	9.6	7.7	—	—
225	25.2	20.5	16.6	13.4	10.8	8.6	—	—
250	27.9	22.7	18.4	17.8	11.9	9.6	—	—
280	31.3	25.4	20.6	16.6	13.4	10.7	—	—
315	35.2	28.6	23.2	18.7	15.0	12.1	9.7	7.7
355	39.7	32.2	26.1	21.1	16.9	13.6	10.9	8.7
400	44.7	36.3	29.4	23.7	19.1	15.3	12.3	9.8
450	50.3	40.9	33.1	26.7	21.5	17.2	13.8	11.0
500	55.8	45.4	36.8	29.7	23.9	19.1	15.3	12.3
560	62.5	50.8	41.2	33.2	26.7	21.4	17.2	13.7
630	70.3	57.2	46.3	37.4	30.0	24.1	19.3	15.4

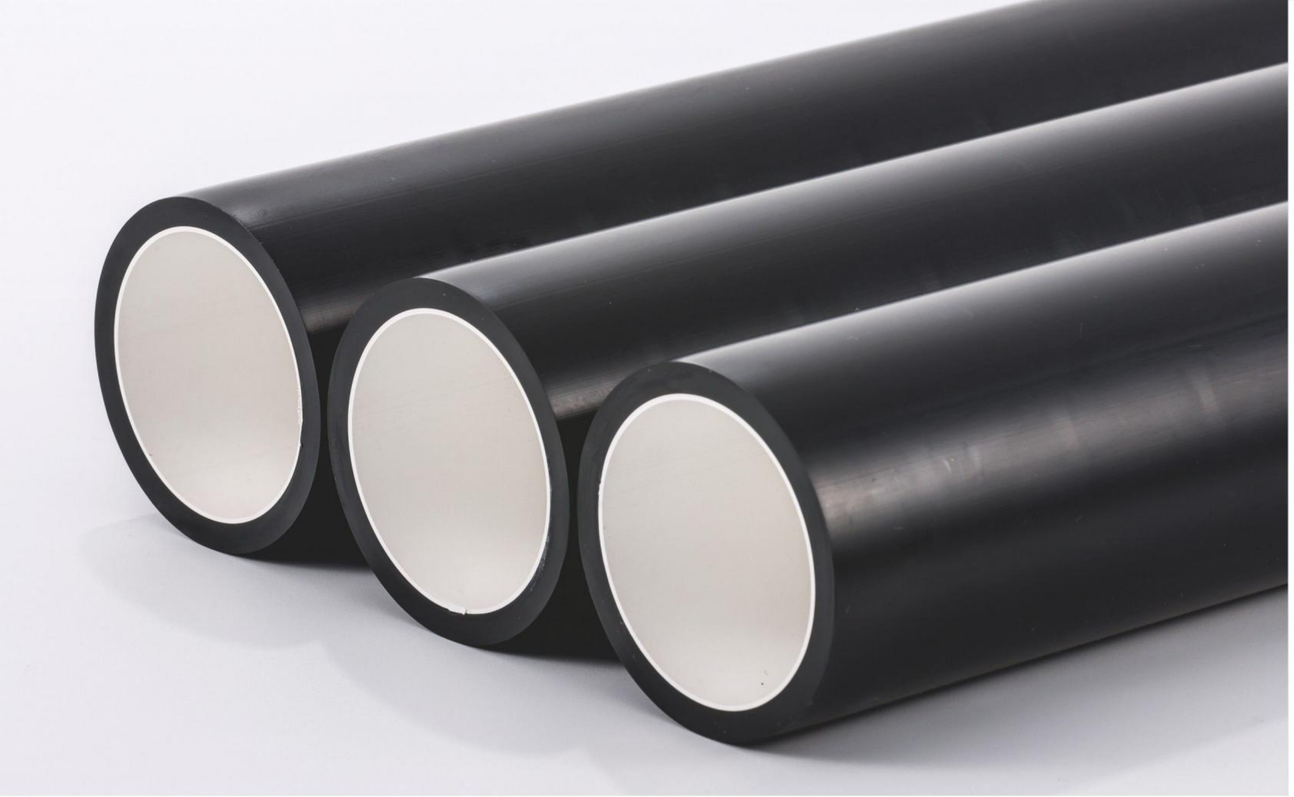
PE100 mining polyethylene pipe size expansion

Nominal outer diameter (dn/mm)	Nominal wall thickness en/mm							
	Standard dimension ratio							
	SDR9	SDR11	SDR13.6	SDR17	SDR21	SDR26	SDR33	SDR41
	Pipe series							
	S4	S5	S6.3	S8	S10	S12.5	S16	S20
	PE80 Nominal Pressure MPa							
	1.6	1.25	1.0	0.8	0.6	0.5	0.4	0.32
	PE100 Nominal Pressure MPa							
	2.0	1.6	1.25	1.0	0.8	0.6	0.5	0.4
16	2.3	—	—	—	—	—	—	—
20	2.3	2.3	—	—	—	—	—	—
25	3.0	2.3	2.3	—	—	—	—	—
32	3.6	3.0	2.4	2.3	—	—	—	—
40	4.5	3.7	3.0	2.4	2.3	—	—	—
50	5.6	4.6	3.7	3.0	2.4	2.3	—	—
63	7.1	5.8	4.7	3.8	3.0	2.5	—	—
75	8.4	6.8	5.6	4.5	3.6	2.9	—	—
90	10.1	8.2	6.7	5.4	4.3	3.5	—	—
110	12.3	10.0	8.1	6.6	5.3	4.2	—	—
125	14.0	11.4	9.2	7.4	6.0	4.8	—	—
140	15.7	12.7	10.3	8.3	6.7	5.4	—	—
160	17.9	14.6	11.8	9.5	7.7	6.2	—	—
180	20.1	16.4	13.3	10.7	8.6	6.9	—	—
200	22.4	18.2	14.7	11.9	9.6	7.7	—	—
225	25.2	20.5	16.6	13.4	10.8	8.6	—	—
250	27.9	22.7	18.4	14.8	11.9	9.6	—	—
280	31.3	25.4	20.6	16.6	13.4	10.7	—	—
315	35.2	28.6	23.2	18.7	15.0	12.1	9.7	7.7
355	39.7	32.2	26.1	21.1	16.9	13.6	10.9	8.7
400	44.7	36.3	29.4	23.7	19.1	15.3	12.3	9.8
450	50.3	40.9	33.1	26.7	21.5	17.2	13.8	11.0
500	55.8	45.4	36.8	29.7	23.9	19.1	15.3	12.3
560	62.5	20.8	41.2	33.2	26.7	21.4	17.2	13.7
630	70.3	57.2	46.3	37.4	30.0	24.1	19.3	15.4
710	79.3	64.5	52.2	42.1	33.9	27.2	21.8	17.4
800	89.3	72.6	58.8	47.4	38.1	30.6	24.5	19.6
900	100.0	81.7	66.2	53.3	42.9	34.4	27.6	22.0
1000	111.1	90.9	72.5	59.3	47.7	38.2	30.6	24.5
1200	133.3	109. 0	88.2	67.9	57.2	45.9	36.7	29.4
1400	—	127.2	102.9	82.4	66.7	53.5	42.9	34.3
1600	—	145.5	117.6	94.1	76.2	61.2	49.0	39.2
1800	—	—	—	105.9	85.7	69.1	54.5	43.8
2000	—	—	—	117.6	95.2	76.9	60.6	48.8
2250	—	—	—	—	107.2	86.0	70.0	55.0
2500	—	—	—	—	119.1	95.6	77.7	61.2

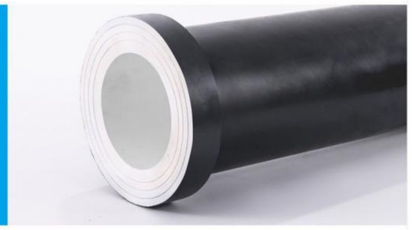
Product Performance

Serial number	Item	Index
1	hydraulic pressure test	According to MT558.1-2005 test conditions, PE80 grade circumferential stress 9.0MPa. PE100 grade circumferential stress 12.0MPa, pressure preservation 100h, no rupture, no leakage.
2	Negative pressure resistance	Under the negative pressure of 0.097MPa, the pressure should be maintained for 100h, and there should be no sucking and damage.
3	Flat property	When the pipe is pressed to coincide with the inner wall, there should be no cracks and damage.
4	Falling weight impact test	According to MT558.1-2005 test conditions, 9 out of 10 samples should have no cracks and damage.
5	Elongation at break	It should not be less than 300%
6	Surface resistance	Supply and drain pipes: the outer wall meter and the arithmetic average value of resistance should not be greater than 10x109Ω
		Positive pressure air duct: The outer wall meter and the arithmetic mean value of resistance should not be greater than 10x108Ω
		Spray pipe: inner and outer wall meter and the arithmetic mean value of resistance should not be greater than 10x108Ω
		Negative pressure air duct: internal and external wall meter and the arithmetic average value of resistance should not be greater than 10x106Ω
		Exhaust gas pipe: inner and outer wall meter and the arithmetic mean value of resistance should not be greater than 10x106Ω
7	Alcohol burner burning	The arithmetic average of the flame burning time of the 6 samples should not be greater than 3s, and the flame burning time of any sample should not be greater than 10s.
		The arithmetic mean of the flameless burning time of the 6 samples should not be greater than 20s, and the flameless burning time of any sample should not be greater than 60s.





POLYETHYLENE WEAR-RESISTANT COMPOSITE PIPE



Product Introduction

Wear-resistant pipes for mining are a very important market segment in the pipeline industry. Wear-resistant pipes are mainly used for conveying materials such as pneumatic and pumping slurry. Because the conveying medium has the characteristics of high hardness, fast flow rate and large flow rate, the pipe can effectively reduce the impact of the conveying medium on the pipe wall for a long time, wear, corrosion and so on, so that the pipe fatigue gradually wears through the speed. Wear-resistant pipes are widely used in chemical industry: such as coal powder, silicon powder, salt slurry, alkali slurry and other solid-liquid mixture transport pipes; Power: such as coal power plant ash removal, slag removal, powder delivery, back powder, desulfurization process pipeline; Gold treatment: such as fine pulp, tailings long-distance pipeline transportation, mineral and solvent process pipeline in concentrator; Cement: such as rotary kiln wet production line of raw slurry transport, coal powder transport, elevator loading, finished cement pneumatic transport loading and unloading, concrete transport pipeline; Food: such as wheat, grain, husk and other wind pipelines, etc., the application field is more extensive.

Product Structure

The wear-resistant polyethylene composite pipe is a single-layer solid wall pipe. The wear-resistant layer is produced by using special pipe grade wear-resistant polyethylene resin as the main raw material, and the wear-resistant layer of polyethylene (PE) is co-extruded without falling off and peeling.

EVALUATION OF ABRASION RESISTANCE IN PIPE FORM

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POLYETHYLENE WEAR-RESISTANT COMPOSITE PIPE

Nominal outer diameter (dn/mm)	Nominal wall thickness en/mm							
	Standard dimension ratio							
	SDR9	SDR11	SDR13.6	SDR17	SDR21	SDR26	SDR33	SDR41
	Pipe series							
	S4	S5	S6.3	S8	S10	S12.5	S16	S20
	PE80 Nominal Pressure MPa							
	1.6	1.25	1.0	0.8	0.6	0.5	0.4	0.32
	PE100 Nominal Pressure MPa							
	2.0	1.6	1.25	1.0	0.8	0.6	0.5	0.4
16	2.3	—	—	—	—	—	—	—
20	2.3	2.3	—	—	—	—	—	—
25	3.0	2.3	2.3	—	—	—	—	—
32	3.6	3.0	2.4	2.3	—	—	—	—
40	4.5	3.7	3.0	2.4	2.3	—	—	—
50	5.6	4.6	3.7	3.0	2.4	2.3	—	—
63	7.1	5.8	4.7	3.8	3.0	2.5	—	—
75	8.4	6.8	5.6	4.5	3.6	2.9	—	—
90	10.1	8.2	6.7	5.4	4.3	3.5	—	—
110	12.3	10.0	8.1	6.6	5.3	4.2	—	—
125	14.0	11.4	9.2	7.4	6.0	4.8	—	—
140	15.7	12.7	10.3	8.3	6.7	5.4	—	—
160	17.9	14.6	11.8	9.5	7.7	6.2	—	—
180	20.1	16.4	13.3	10.7	8.6	6.9	—	—
200	22.4	18.2	14.7	11.9	9.6	7.7	—	—
225	25.2	20.5	16.6	13.4	10.8	8.6	—	—
250	27.9	22.7	18.4	14.8	11.9	9.6	—	—
280	31.3	25.4	20.6	16.6	13.4	10.7	—	—
315	35.2	28.6	23.2	18.7	15.0	12.1	9.7	7.7
355	39.7	32.2	26.1	21.1	16.9	13.6	10.9	8.7
400	44.7	36.3	29.4	23.7	19.1	15.3	12.3	9.8
450	50.3	40.9	33.1	26.7	21.5	17.2	13.8	11.0
500	55.8	45.4	36.8	29.7	23.9	19.1	15.3	12.3
560	62.5	20.8	41.2	33.2	26.7	21.4	17.2	13.7
630	70.3	57.2	46.3	37.4	30.0	24.1	19.3	15.4
710	79.3	64.5	52.2	42.1	33.9	27.2	21.8	17.4
800	89.3	72.6	58.8	47.4	38.1	30.6	24.5	19.6
900	100.0	81.7	66.2	53.3	42.9	34.4	27.6	22.0
1000	111.1	90.9	72.5	59.3	47.7	38.2	30.6	24.5
1200	133.3	109.0	88.2	67.9	57.2	45.9	36.7	29.4
1400	—	127.2	102.9	82.4	66.7	53.5	42.9	34.3
1600	—	145.5	117.6	94.1	76.2	61.2	49.0	39.2
1800	—	—	—	105.9	85.7	69.1	54.5	43.8
2000	—	—	—	117.6	95.2	76.9	60.6	48.8
2250	—	—	—	—	107.2	86.0	70.0	55.0
2500	—	—	—	—	119.1	95.6	77.7	61.2

Note: The above pipe wall thickness does not include the thickness of the abrasion-resistant layer. The thickness of theabrasion-resistant layer is designed to be between 2.0-10.0mm, depending on the model.

Connection Method

Flanged Pipe Body Connection

Pipeline connection surface display

Nominal outer diameter (dn/mm)	Nominal pressure MPa				
	0.8	1.0	1.25	1.6	2.0
90		○	○	○	○
110		○	○	○	○
125		○	○	○	○
140		○	○	○	○
160		○	○	○	○
180		○	○	○	○
200		○	○	○	○
225		○	○	○	○
250	○	○	○	○	○
315	○	○	○	○	○
355	○	○	○	○	○
400	○	○	○	○	○
450	○	○	○	○	○
500	○	○	○	○	○
560	○	○	○	○	○
630	○	○	○	○	○

Notes: This connection method is suitable for mining polyethylene (PE) pipelines and mining polyolefin co-extruded POE wear-resistant pipelines. Other outer diameter sizes and pressure levels can be customized separately.

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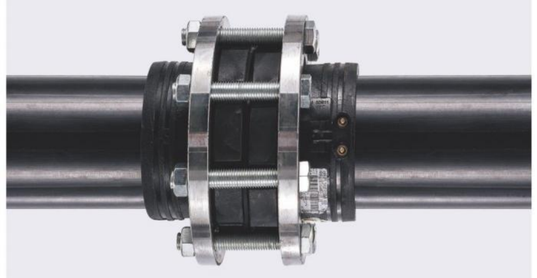
Electro-fusion Flange Connection



Pipeline connection surface display

Nominal outer diameter (dn/mm)	Nominal pressure MPa				
	0.8	1.0	1.25	1.6	2.0
50	○	○	○	○	○
63	○	○	○	○	○
75	○	○	○	○	○
90	○	○	○	○	○
110	○	○	○	○	○
125	○	○	○	○	○
140	○	○	○	○	○
160	○	○	○	○	○
200	○	○	○	○	○
225	○	○	○	○	○
250	○	○	○	○	○
315	○	○	○	○	○
355	○	○	○	○	○
400	○	○	○	○	○
450	○	○	○	○	○
500	○	○	○	○	○
560	○	○	○	○	○
630	○	○	○	○	○

Notes: This connection method is suitable for mining polyethylene (PE) pipeline connections. Other outer diameter sizes and pressure levels can be customized separately.

Connection Method

Butt Flange Connection

Pipeline connection surface display

Nominal outer diameter (dn/mm)	Nominal pressure MPa			
	0.8	1.0	1.25	1.6
50				○
63				○
75			○	○
90		○	○	○
110	○	○	○	○
125	○	○	○	○
140	○	○	○	○
160	○	○	○	○
200	○	○	○	○
225	○	○	○	○
250	○	○	○	○
315	○	○	○	○
355	○	○	○	○
400	○	○	○	○
450	○	○	○	○
500	○	○	○	○
560	○	○	○	○
630	○	○	○	○
710	○	○	○	
800	○	○	○	
900	○	○		
1000	○	○		

Notes: This connection method is suitable for mining polyethylene (PE) pipeline connections.

Socket Flange Connection

Pipeline connection surface display

Nominal outer diameter (dn/mm)	Nominal pressure MPa			
	0.8	1.0	1.25	1.6
50	○	○	○	○
63	○	○	○	○
75	○	○	○	○
90	○	○	○	○
110	○	○	○	○

Notes: This connection method is suitable for mining polyethylene (PE) pipeline connections.

Physical property

No.	Item	Index
1	Hydraulic Test	Under the test conditions of MT558.1-2005, PE80-grade hoop stress 9.0MPa. PE100-grade hoop stress 12.0MPa, maintain pressure for 100h, no rupture, no leakage.
2	Flattening Performance	When the pipe is compressed until the inner walls coincide, there should be no cracks or damage.
3	Drop Hammer Impact Test	Under the test conditions of MT558.1-2005, 9 out of 10 samples should have no cracks or damage.
4	Elongation at Break	Should not be less than 300%

POLYVINYL CHLORIDE (PVC) PIPE FOR UNDERGROUND COAL MINES

Product Introduction

Coal mine underground PVC pipes are high-performance pipes used in coal mines, known for their impact resistance, corrosion resistance, wear resistance, non-scaling properties, and aging resistance. Made from polyvinyl chloride resin with appropriate additives, these pipes are extruded and formed for various applications such as gas drainage, positive and negative pressure ventilation, water supply and drainage, and spraying in coal mines.

- Lightweight, easy to handle, and corrosion-resistant
- Strong chemical stability and low fluid resistance
- Aging-resistant, long service life, low cost, easy to connect, convenient construction, and low installation costs

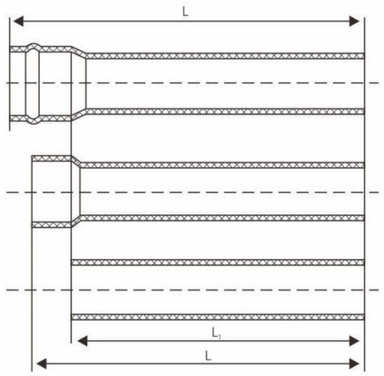
Implementation Standards

MT 181-88
《Safety Performance Testing Specifications for Plastic Pipes Used in Underground Coal Mines》

MT 558.2-2005
《Plastic Pipes for Underground Coal Mines - Part 2: Polyvinyl Chloride Pipes》

AQ 1071-2009
《Safety Technical Requirements for Non-Metal Gas Transport Pipes for Coal Mines》

Product Structure



Explanation of Index Numbers:
L: Pipe length
L1: Effective pipe length

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Product advantages

Corrosion Resistance and Cost-Effectiveness

Corrosion-resistant and non-scaling, with a long service life and maintenance-free, saving costs on future anti-corrosion and descaling measures. Its lifespan far exceeds steel pipes, with a comprehensive benefit 6-8 times that of steel pipes.

Low Fluid Resistance in Pipeline Transportation

oThe pipe material has self-lubricating properties, is non-scaling, and has smooth inner and outer walls.

High Strength and Easy Assembly/Disassembly

oLow density, with unit weight only 20% of steel pipes and 30% of glass pipes. Easy to disassemble and install, significantly reducing labor intensity and saving a lot of installation costs and time.

Lightweight and Easy to Transport

oWith a specific gravity of only 1/6 that of steel pipes, it is easy to transport, install, modify, and dismantle. Various installation methods such as socket connections, flange connections, and threaded connections can be used, saving a significant amount of construction and installation time and economic costs.

Permanent Flame Retardant and Anti-Static Properties

PVC has low molecular activity and is inherently flame retardant. Its anti-static and flame retardant performance exceeds the technical parameters specified in MT558.2-2005 standards, with consistent and lasting double anti-performance. Its anti-static and safety performance is far superior to coated and adhesive pipes. It will not produce sparks upon collision, ensuring underground safety.

Product Usage

UPVC pipes for coal mines can be used for gas drainage, water supply, drainage, and ventilation in underground coal mines. For gas drainage, pipes with at least 0.6MPa pressure rating should be selected to prevent the pipes from collapsing under vacuum (negative pressure). According to safety regulations, UPVC coal mine pipes are strictly prohibited for conveying any gas above 0.1MPa pressure. During pressure testing, UPVC coal mine pipes should be tested with liquid, not gas.

Points to Note

1.While they have many advantages, they have lower strength compared to steel pipes. Therefore, during installation and handling, avoid severe impacts to prevent damage or hidden cracks in the pipes or fittings.
2.oThe pipes are black. When exposed to sunlight, the sunny side absorbs heat quickly, causing a rapid temperature rise, while the shaded side's temperature increases more slowly, creating temperature difference stress that may cause the pipes to bend. Therefore, they should be stored indoors or shaded when stored outdoors.

Product Specifications

UPVC Polyvinyl Chloride Pipes for Coal Mines

Nominal outer diameter (dn/mm)	0.6MPa	0.8MPa	1.0MPa	1.25MPa	1.6MPa	2.0MPa	2.5MPa
	Wall Thickness	Wall Thickness	Wall Thickness	Wall Thickness	Wall Thickness	Wall Thickness	Wall Thickness
20						2.2	2.7
25				2.0	2.3	2.8	3.4
32				2.3	2.9	3.6	4.3
40		2.0	2.4	2.9	3.6	4.4	5.4
50		2.4	2.9	3.6	4.5	5.6	6.8
63	2.3	3.0	3.7	4.6	5.7	7.0	8.5
75	2.7	3.6	4.4	5.4	6.8	8.3	10.1
90	3.2	4.3	5.3	6.5	8.2	10.0	12.2
110	4.0	5.3	6.5	8.0	10.0	12.2	14.9
125	4.5	6.0	7.4	9.0	11.4	13.9	16.9
140	5.0	6.7	8.2	10.1	12.7	15.6	18.9
160	5.8	7.7	9.4	11.6	14.5	17.8	21.6
180	6.5	8.6	10.6	13.0	16.4	20.0	24.3
200	7.2	9.5	11.8	14.5	18.2	22.2	27.0
225	8.1	10.7	13.2	16.3	20.4	25.0	30.4
250	9.0	11.9	14.7	18.1	22.7	27.8	33.8
280	10.1	13.3	16.5	20.3	25.4	31.1	37.8
315	11.3	15.0	18.5	22.8	28.6	35.0	
355	12.8	16.9	20.9	25.7	32.2		
400	14.4	19.0	23.5	29.0	36.4		
450	16.2	21.4	26.5	32.6			
500	18.0	23.8	29.4	36.2			
560	20.2	26.7	32.9				
630	22.7	30.0	37.0				
710	25.6	33.8					
800	28.8	38.1					

Product Performance

No.	Item	Index
1	Flattening Performance	No cracks or damage when compressed to 1/2 of the outer diameter
	Tensile Strength, MPa	⩾35
2	Drop Hammer Impact	Under the test conditions of MT558.2-2005, 9 out of 10 samples should have no cracks or damage
3	Pressure Resistance	Under the test conditions of MT558.2-2005, maintain pressure for 100h, no cracks or damage
4	Surface Resistance	For water supply and drainage pipes: The arithmetic average of the outer wall surface resistance should not exceed $10\times10^{9}\Omega$
		For positive pressure air pipes: The arithmetic average of the outer wall surface resistance should not exceed $10\times10^{2}\Omega$
		For spraying pipes: The arithmetic average of the inner and outer wall surface resistance should not exceed $10\times10^{2}\Omega$
		For negative pressure air pipes: The arithmetic average of the inner and outer wall surface resistance should not exceed $10\times10^{9}\Omega$
		For gas drainage pipes: The arithmetic average of the inner and outer wall surface resistance should not exceed $10\times10\Omega$
5	Alcohol Torch Combustion	The arithmetic average of the flaming combustion time for 6 samples should not exceed 3 seconds, and the flaming combustion time for any sample should not exceed 10 seconds.
		The arithmetic average of the flameless combustion time for 6 samples should not exceed 20 seconds, and the flameless combustion time for any sample should not exceed 60 seconds.

Product Processing Applications

- Lateral Wire Cutting on Pipe Body
- Drilling on Pipe Body

Connection Method

Threaded Connection

R-Socket Rubber Ring Connection

Flared Threaded Connection

Flared Socket Connection

UHMW-PE ULTRA-HIGH MOLECULAR WEIGHT POLYETHYLENE PIPELINE

Product Introduction

UHMW-PE is a linear structured polyethylene with a viscosity-average molecular weight above 2.5 million. Its extremely high relative molecular weight (while standard polyethylene has a relative molecular weight of only 200,000-300,000) endows it with extraordinary performance, making it a new type of thermoplastic engineering plastic with excellent properties and a moderate price. It combines almost all the advantages of various plastics: impact resistance, low-temperature resistance, wear resistance, chemical corrosion resistance, and self-lubrication.

As a new engineering plastic pipe material with excellent comprehensive performance, UHMW-PE pipes can be widely used in the transportation of various powders, slurries, fluids, and gases, with vast market potential. They can solve problems of severe wear, corrosion, and scaling in the transportation of large quantities and varieties of industrial materials. UHMW-PE pipes can replace traditional metal pipes that struggle to meet these requirements. According to the "Plastic Pipe Wear Test Research Report" by the Beijing Nonferrous Metallurgy Design and Research Institute, the average annual wear thickness of pipes made from four different materials was tested under the same diameter, flow rate, experimental materials, and concentration conditions. The results were: glass fiber-reinforced polypropylene pipes 11.5424mm/year, engineering-grade polypropylene pipes (PP) 13.5828mm/year, UHMW-PE pipes 5.0104mm/year, and steel pipes (A3) 36.2424mm/year. The results indicate that the wear resistance of UHMW-PE pipes is seven times that of steel pipes. The unique molecular structure of UHMW-PE pipes provides them with extremely high resistance to sliding friction and a lightweight advantage, with a unit pipe weight only one-eighth that of steel pipes, making loading, transportation, and installation more convenient. The aging and embrittlement rates of UHMW-PE pipes are very slow, with anti-aging performance superior to PE100. When used underground for 50 years, its mechanical properties decrease by only 20%. Its lightweight, flexibility, convenient transportation and installation, low cost, and safe and reliable connections demonstrate the advantages of "energy-saving, environmentally friendly, economical, and efficient."

The impact strength of UHMW-PE pipes can reach over 120KJ/M^2, which is 10 times that of PE. Whether installed above ground or buried underground, UHMW-PE pipes are easy to connect using welding or flange connections, ensuring safety, reliability, quick installation, and no need for anti-corrosion measures, thereby saving labor and effort.

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Specifications of UHMW-PE Pipes

Specifications (mm)	Working Pressure (MPa)	Weight per Meter (Kg/m)	Specifications (mm)	Working Pressure (MPa)	Weight per Meter (Kg/m)
50x10	5.0	1.22	256x8	0.6	6.04
63x10	3.7	1.61	256x12	1.0	8.92
75x10	3.1	1.98	261x10	0.8	7.64
89x8	2.0	1.97	265x8	0.6	6.26
89x10	2.5	2.40	273x12	0.9	9.54
100x10	2.2	2.74	273x14	1.1	11.04
105x10	2.1	2.89	273x16	1.2	12.52
108x8	1.6	2.43	273x18	1.4	13.98
108x10	2.0	2.98	273x20	1.6	15.41
108x20	4.5	5.36	273x22	1.8	16.82
110x10	2.0	3.06	282x8	0.6	6.68
110x14	2.9	4.09	290x13	0.9	10.96
120x8	1.4	2.73	300x25	1.8	20.94
120x10	1.8	3.35	310x10	0.7	9.14
120x12	2.2	3.95	315x12	0.8	11.07
125x8	1.4	2.85	325x12	0.8	11.44
125x12.5	2.2	4.28	325x15	1.0	14.16
130x10	1.7	3.66	325x16	1.0	15.06
133x12	2.0	4.42	325x20	1.3	18.58
133x18	3.1	6.30	325x24	1.6	22.00
136x10.5	1.7	4.01	325x26	1.7	23.68
145x10	1.5	4.11	352x26	1.6	25.82
150x10	1.4	4.26	360x10	0.6	10.66
155x15	2.1	6.40	360x12	0.7	12.72
159x8	1.1	3.68	362x30	1.8	30.34
159x10	1.3	4.54	377x16	0.9	17.59
159x12	1.6	5.37	377x18	1.0	19.68
159x16	2.2	6.97	377x20	1.1	21.75
159x20	2.9	8.47	377x28	1.6	29.76
163x14	1.9	6.35	410x10	0.5	12.18
168x8	1.0	3.90	410x12	0.6	14.55
168x10	1.3	4.81	410x15	0.8	18.05
168x12	1.5	5.70	426x18	0.9	22.37
171x10	1.2	4.90	426x20	1.0	24.73
177x10	1.2	5.09	426x30	1.5	36.18
180x10	1.2	5.18	450x15	0.7	19.87
180x15	1.8	7.54	450x20	0.9	26.19
180x18	2.2	8.88	450x32	1.5	40.74
186x18	2.1	9.21	466x8	0.3	11.16
188x8	0.9	4.39	480x20	0.9	28.02
190x8	0.9	4.43	500x15	0.6	22.15
190x15	1.7	8.00	500x22	0.9	32.03
190x22	2.6	11.25	510x10	0.4	15.23
194x18	2.0	9.65	517x8	0.3	12.40
194x22	2.6	11.53	520x15	0.6	23.07
200x10	1.1	5.79	530x18	0.7	28.07
200x12	1.3	6.87	530x20	0.8	31.07
200x15	1.6	8.45	530x22	0.9	34.04
205x8	0.8	4.80	530x25	1.0	38.45
205x10	1.0	5.94	530x30	1.2	45.69
219x10	1.0	6.37	580x25	0.9	42.26
219x12	1.2	7.57	618x10	0.3	18.52
219x15	1.5	9.32	630x19	0.6	35.36
219x20	2.0	12.12	630x22	0.7	40.74
230x8	0.7	5.41	630x25	0.8	46.07
230x15	1.4	9.82	630x38	1.3	68.52
236x18	1.7	11.95	710x34	1.0	70.00
245x12	1.0	8.52	800x35	0.9	81.55
245x15	1.3	10.51	800x38	1.0	88.19
250x20	1.7	14.01	900x12	0.3	32.46
252x10	0.8	7.37	1000x40	0.8	116.96
252x12	1.0	8.77			

Product Performance

High Abrasion Resistance

The unique molecular structure of UHMW-PE pipes endows them with exceptional abrasion resistance, being 4-7 times more wear-resistant than regular steel pipes, 27.3 times that of stainless steel, 17.9 times that of phenolic resins, 6 times that of nylon, 4 times that of polyethylene, and 5 times that of PTFE. This outstanding wear resistance significantly increases the pipe's conveying capacity and extends its service life.

Corrosion Resistance

UHMW-PE pipes can resist aggressive chemicals. Except for minor corrosion by some strong acids at high temperatures, they are not affected by other alkalis or acids. They can be used in hydrochloric acid concentrations below 80%, sulfuric acid concentrations below 75%, and nitric acid concentrations below 20% with stable performance.

Corrosion Resistance

Due to its stable properties, UHMW-PE pipes have strong weather resistance and good anti-aging properties, making them suitable for both above-ground and underground installations. They do not age under sunlight for 50 years.

Self-Lubrication

UHMW-PE pipes contain wax-like substances, making their inner and outer walls smooth and self-lubricating. The friction coefficient (196N, 2 hours) is only 0.219MN/m (GB3960). During long-term transportation of high-concentration, high-viscosity media, pipe wall scaling is effectively reduced, eliminating the need for acid washing and descaling, and significantly reducing maintenance costs.

Self-Lubrication

UHMW-PE pipes have the highest impact resistance among plastics and can absorb impact energy. They do not crack under strong external impacts or internal pressure fluctuations. In severe or repeated explosive impacts, materials like UHMW-PE pipes do not develop cracks, damages, or surface stress fatigue. According to GB1843 standards, UHMW-PE pipes can withstand cantilever beam impact tests without damage. Their impact strength is 10 times that of Nylon 66, 20 times that of PVC, and 4 times that of polyethylene. Particularly in low-temperature environments, their impact strength reaches its peak, providing extremely reliable security for transport systems.

Low-Temperature Resistance

UHMW-PE pipes exhibit excellent low-temperature resistance, with unchanged impact and wear resistance at -269°C. They can operate long-term in temperatures ranging from -269°C to 80°C.

High Pressure and Toughness

UHMW-PE pipes have high pressure resistance and toughness, with tensile strength twice that of PE100. They can withstand significant internal pressure fluctuations during medium transportation. The elongation rate of UHMW-PE pipes exceeds 300%, preventing cracks in pipes and joints during environmental subsidence, ensuring normal medium transport.

Energy-Saving and Environmentally Friendly

UHMW-PE pipes have excellent self-lubrication and non-adhesion properties, with a friction coefficient of only 0.04-0.07 compared to 0.13 for steel pipes. They provide greater medium transport flow than steel wear-resistant pipes of the same diameter. Using UHMW-PE pipes can save 30% of energy at the same flow rate. Due to their wear resistance, corrosion resistance, frost resistance, and anti-fouling properties, they do not require rust prevention, anti-freeze, descaling, or other daily maintenance, saving over 95% in maintenance costs. Additionally, their weight is only one-eighth that of steel pipes, greatly facilitating loading, installation, transportation, and use.

KANGYU 康雨管业

Product Applications

Mining Industry

Tailings and slurry transportation, underground filling pipes.

Sea and Lake Salt, Phosphorus Chemical Industry

Anti-crystallization transportation, brine transport pipelines.

Thermal Power Generation

Fly ash, chemical water, circulating water transport pipelines.

Petrochemical Industry

Corrosive media, crude oil transport pipelines.

Food Processing

Water supply, material transport pipelines.

River Dredging

Dredging, sand pumping pipelines.

Transportation Construction Industry

Tunnel escape pipelines.

Coal Industry

Underground gas pipes, water supply and drainage pipes, ventilation pipes, grouting pipes, coal slurry transport pipelines.

Connection Method

Due to the characteristics of UHMW-PE melt, only the flange method can be used for pipe body connections.

Norway
Russia
the United Kingdom
Denmark
the Netherlands
Kazakhstan
Mongolia
Uzbekistan
Shandong
Japan
Canada
the United States
the United Arab Emirates
India
Bangladesh
the Philippines
Cambodia
Malaysia
Singapore
Indonesia
Ghana
Nigeria
Tanzania
South Africa
Australia
New Zealand
Peru
Brazil
Chile

FOR COALMINES NON-COAL MINES

Focus various types of mining pipelines

- Mine Gas Extraction Pipeline
- Mine Positive/Negative Pressure Ventilation Pipe
- Mine Sealing/Shotcreting/Filling Pipe
- Polyolefin POE Super Abrasion-Resistant Pipe
- Mine Water Supply/Drainage Pipeline
- Mine Gas/Liquid Pipeline
- Tailings Conveyance and Backfill Abrasion-Resistant Pipe
- Flame-Retardant/Anti-Static/Super Conductive

MARKETING

Establishing a Comprehensive Marketing Network for Overall Business Development

Embracing the spirit of innovation and progress, Kangyu Pipe Industry uses domestic market distributor channels as a foundation to fully develop e-commerce platform channels. The establishment of the International Trade Department to expand international business and the implementation of a multi-channel business development strategy enable us to understand and meet customer needs to the greatest extent. We have established cooperative relationships with over 20,000 customers both domestically and internationally. Our products are sold to more than thirty countries and regions, earning unanimous recognition and praise from our clients.

Attestation – Аттестация – 证明 – Attestation – 인증서 – شهادة

Form QAT_10-M06, version 02, effective since October 07th, 2022

ATTESTATION

No. 3N221124.SKPCO06

Attestation's Holder: SHANDONG KANGYU PIPE INDUSTRY CO., LTD.
150m east of Daliuwang Village, Wanggou Town, Lanshan District, Linyi City

Attestation ECM Mark: Type Approved

Product: Plastic Pipe and Pipe fittings
Model(s): *(see the following annex)*

Verification to: Standard:
EN 12201-1:2011, EN 12201-2:2011+A1:2013, EN 12201-3:2011+A1:2012, EN 1555-1:2021, EN 1555-2:2021, EN 1555-3:2021, EN ISO 15874-1:2013+A1:2022, EN ISO 15874-2:2013+A2:2022, EN ISO 15874-3:2013+A2:2021, EN ISO 15874-5:2013+A1:2018, EN 12050-4:2015, EN ISO 21003-2:2008+A1:2011

related to CE Directive(s):
R 305/2011 (Regulation for the Marketing of Construction Products)

This document has been issued in accordance with the European Commission's note of 14 September 2022 ref. Ares (2022) 6342894 concerning voluntary certifications with a non-notified procedure as it does not fall within the scope of Ente Certificazione Macchine notification under harmonised Union legislation.

The manufacturer has voluntarily decided to submit its documents concerning the above-mentioned product for verification. Ente Certificazione Macchine confirms that the documentation made available and immediately returned to it, as containing sensitive data, meets the essential requirements of the above-mentioned directives. The verification activity carried out exclusively concerned the technical documentation and no verification was carried out on the product. This document cannot replace the EC Declaration of Conformity. The above conformity mark can be affixed to the technical documentation in accordance with the ECM regulation on its issue and use, published on the website www.entecerma.it

Issuance date: 24 November 2022

Expiry date: 23 November 2027

For online check:

Approver
Ente Certificazione Macchine
Legal Representative
Luca Beldonni

Ente Certificazione Macchine Srl
Via Ca' Bella, 243 – Loc. Castello di Serravalle – 40053 Valsamoggia (BO) - ITALY
☎ +39 051 6705141 🖷 +39 051 6705156 ✉ info@entecerma.it 🌐 www.entecerma.it

Attestation – Аттестация – 证明 – Attestation – 인증서 – شهادة

Form QAT_10-M06, version 02, effective since October 07th, 2022

Annex I

No. 3N221124.SKPCO06

Model(s):

HDPE PIPES AND FITTINGS (DN20-DN1600)
HDPE GAS PIPES (DN20-630)
HDPE PIPE WITH STEEL FRAME (DN20-1200)
PPR PIPES AND FITTINGS (DN20-DN315)
PVC PIPES AND FITTINGS (DN20-DN800)
PB PIPES AND FITTINGS (DN20-DN160)
PE-RT PIPES AND FITINGS (DN20-DN630)

Ente Certificazione Macchine Srl
Via Ca' Bella, 243 – Loc. Castello di Serravalle – 40053 Valsamoggia (BO) - ITALY
☎ +39 051 6705141 🖷 +39 051 6705156 ✉ info@entecerma.it 🌐 www.entecerma.it

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Verified

Assessment Report Presented to

Shandong Kangyu Pipe Industry Co., Ltd
山东康雨管业有限公司

Assessment Report

Report number	156205464_P+T	Assessment Type	Production Trading Assessment
Report date	2024-05-17	Assessor's Name	Mingxing Yang
Report started	2024-05-18 - 2025-05-17	Reviewed by	Lihua Wu
Verification Address	https://assessed-suppliers.chn.tuv.com		

Important Notes

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This report reflects our findings for the particularly concerned company on the date of our service only. This report does not discharge or release the factory/sellers/suppliers from their commercial, legal or contractual obligations with buyers in respect of products provided by the factory/sellers/suppliers. Any reader other than the party for whom this report has been specifically issued is hereby informed that the general conditions of service of TUV Rheinland' s contain liability limitation provisions.

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Made-in-China

Audit Report

Report NO.: MIC-ASR245065 Audit Date: 2024-01-08

Holder:
Company Name (English): Shandong Kangyu Pipe Industry Co., Ltd.
Company Name (Chinese): 山东康雨管业有限公司
Showroom: https://cnpepipe.en.made-in-china.com
Registered address: Kangyu Industrial Park, North Section of West Central Ring Road, Wanggou Town, Lanshan District, Linyi City, Shandong Province, China
Actual address: Kangyu Industrial Park, North Section of West Central Ring Road, Wanggou Town, Lanshan District, Linyi City, Shandong Province, China
Indent Type: • Re-Audit
Main Product: HDPE Pipe, HDPE Steel Reinforced Pipe, HDPE Electrofusion Fitting, HDPE Fitting, PPR Pipe, PPR Fitting, HDPE Gas Pipe, HDPE Steel Skeleton Composite Pipe, PVC Pipe, PVC Fitting, HDPE Double Wall Corrugated Pipe, MPP Electrical Pipe

Zhangli

Sign for and on behalf of Bureau Verita

Auditor: Hiler Lv **Reviewed by:** Jessie Zhu

上海赛威认证有限公司
（上海市徐汇区桂平路481号21幢401室 200233）

质量管理体系认证证书

证书编号：SW24Q20849R0S

兹证明

山东康雨管业有限公司

组织机构代码/统一社会信用代码：91371302493279707R

注册地：山东省临沂市兰山区汪沟镇西中环北段康雨工业园
生产/经营地：山东省临沂市兰山区汪沟镇大柳汪村东 150 米

质量管理体系符合标准：
GB/T19001-2016/ISO9001:2015

管理体系认证范围：
塑料管材的生产（PE、PPR、PERT 管材）（涉及许可的限许可证范围内）

（签发人）

颁证日期：2024 年 05 月 29 日
有效期至：2027 年 05 月 28 日

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C201-M

本证书三年有效期内每隔12个月须接受一次监督审核，并和年度确认书一起使用方可有效。
证书有效性可登录国家认监委官方网站 www.cnca.gov.cn 或扫描二维码查询。

SHANGHAI SAILWAY CERTIFICATION CO.,LTD.
(Room 401, Building 21, No.481, Guiping Road, Xuhui, Shanghai 200233)

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate Number: SW24Q20849R0S

This is to Certify that the Quality Management System of

Shandong Kangyu Pipe Industry Co., Ltd.

Organization Code/Unified Social Credit Code: 91371302493279707R

Registration Address:Kangyu Industrial Park, North Section of West Central Ring Road, Wanggou Town, Lanshan District, Linyi City, Shandong Prov.
Production/Business Address:150 meters East of Daliuwang Village, Wanggou Town, Lanshan District, Linyi City, Shandong Prov.

Has been Audited to Conform to the Following Quality Management System Standard:

GB/T19001-2016/ISO9001:2015

for the Scope of Registration:

Production of Plastic Pipes (PE,PPR,PERT Pipes) (within the Scope of the License).

（Issued By）

Date of Issue: May 29, 2024
Date of Expiry: May 28, 2027

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C201-M

A surveillance audit must be carried out every 12 months within the three-year validity period.Also,it is only valid along with the anniversary confirmation.Effectiveness of the certificate,you can search CNCA website: www.cnca.gov.cn or scanning QR code.

上海赛威认证有限公司
（上海市徐汇区桂平路481号21幢401室 200233）

职业健康安全管理体系认证证书

证书编号：SW24S20364R0S

兹证明

山东康雨管业有限公司

组织机构代码/统一社会信用代码：91371302493279707R

注册地：山东省临沂市兰山区汪沟镇西中环北段康雨工业园
生产/经营地：山东省临沂市兰山区汪沟镇大柳汪村东 150 米

职业健康安全管理体系符合标准：
GB/T45001-2020/ISO45001:2018

管理体系认证范围：
塑料管材的生产（PE、PPR、PERT 管材）（涉及许可的限许可证范围内）及相关管理活动

（签发人）

颁证日期：2024 年 05 月 29 日
有效期至：2027 年 05 月 28 日

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C201-M

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SHANGHAI SAILWAY CERTIFICATION CO.,LTD.
(Room 401, Building 21, No.481, Guiping Road, Xuhui, Shanghai 200233)

OCCUPATIONAL HEALTH SAFETY MANAGEMENT SYSTEM CERTIFICATE

Certificate Number: SW24S20364R0S

This is to Certify that the Occupational Health & Safety Management System of

Shandong Kangyu Pipe Industry Co., Ltd.

Organization Code/Unified Social Credit Code: 91371302493279707R

Registration Address:Kangyu Industrial Park, North Section of West Central Ring Road, Wanggou Town, Lanshan District, Linyi City, Shandong Prov.
Production/Business Address:150 meters East of Daliuwang Village, Wanggou Town, Lanshan District, Linyi City, Shandong Prov.

Has been Audited to Conform to the Following Occupational Health & Safety Management System Standard:

GB/T45001-2020/ISO45001:2018

for the Scope of Registration:

Production of Plastic Pipes (PE,PPR,PERT Pipes) (within the Scope of the License) and Related Management Activities.

（Issued By）

Date of Issue: May 29, 2024
Date of Expiry: May 28, 2027

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CNAS C201-M

A surveillance audit must be carried out every 12 months within the three-year validity period.Also,it is only valid along with the anniversary confirmation.Effectiveness of the certificate,you can search CNCA website: www.cnca.gov.cn or scanning QR code.

上海赛威认证有限公司
（上海市徐汇区桂平路481号21幢401室 200233）

环境管理体系认证证书

证书编号：SW24E20452R0S

兹证明

山东康雨管业有限公司

组织机构代码/统一社会信用代码：91371302493279707R

注册地：山东省临沂市兰山区汪沟镇西中环北段康雨工业园
生产/经营地：山东省临沂市兰山区汪沟镇大柳汪村东 150 米

环境管理体系符合标准：
GB/T24001-2016/ISO14001:2015

管理体系认证范围：
塑料管材的生产（PE、PPR、PERT 管材）（涉及许可的限许可证范围内）及相关管理活动

（签发人）

颁证日期：2024 年 05 月 29 日
有效期至：2027 年 05 月 28 日

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MANAGEMENT SYSTEM
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上海赛威认证有限公司 证书专用章

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SHANGHAI SAILWAY CERTIFICATION CO.,LTD.
(Room 401, Building 21, No.481, Guiping Road, Xuhui, Shanghai 200233)

ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Certificate Number: SW24E20452R0S

This is to Certify that the Environmental Management System of

Shandong Kangyu Pipe Industry Co., Ltd.

Organization Code/Unified Social Credit Code: 91371302493279707R

Registration Address:Kangyu Industrial Park, North Section of West Central Ring Road, Wanggou Town, Lanshan District, Linyi City, Shandong Prov.
Production/Business Address:150 meters East of Daliuwang Village, Wanggou Town, Lanshan District, Linyi City, Shandong Prov.

Has been Audited to Conform to the Following Environmental Management System Standard:

GB/T24001-2016/ISO14001:2015

for the Scope of Registration:

Production of Plastic Pipes (PE,PPR,PERT Pipes) (within the Scope of the License) and Related Management Activities.

（Issued By）

Date of Issue: May 29, 2024
Date of Expiry: May 28, 2027

中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C201-M

上海赛威认证有限公司 证书专用章

A surveillance audit must be carried out every 12 months within the three-year validity period.Also,it is only valid along with the anniversary confirmation.Effectiveness of the certificate,you can search CNCA website: www.cnca.gov.cn or scanning QR code.

能源管理体系认证证书

证书号：HXC18924EN10025R0M

兹 证 明

山东康雨管业有限公司

统一社会信用代码：91371302493279707R

注册/审核地址：山东省临沂市兰山区汪沟镇西中环北段康雨工业园

能源管理体系符合

GB/T 23331-2020 / ISO 50001:2018

和 RB/T 114-2014、RB/T 119-2015 标准条款的要求

该体系认证所覆盖的范围

位于山东省临沂市兰山区汪沟镇西中环北段康雨工业园的
山东康雨管业有限公司 PE、PPR 管的生产所涉及的能源管理活动
（年度单位建筑面积综合能耗或单位产值综合能耗，能耗核算边界详见附件）

第一次监审	贴标处	第二次监审	贴标处	第三次监审	贴标处

证书有效期内，获证组织须每年至少接受一次监督审核并加贴合格标志，证书方为有效。
本证书信息可在国家认证认可监督管理委员会官方网站：www.cnca.gov.cn查询。
证书有效性以右侧二维码扫描内容为准

华信创认证

初次获证日期：2024 年 4 月 7 日　　签发日期：2024 年 4 月 7 日　　有效日期：2027 年 4 月 6 日
北京市昌平区科技园区振兴路 28 号 2 号楼 228 室　　www.hxcce.org　　010-57146599

ENERGY MANAGEMENT SYSTEMS CERTIFICATE

Certificate No. : HXC18924EN10025R0M

Awarded to

Shandong Kangyu Pipe Industry Co., Ltd

Organization Code: 91371302493279707R
Registered/Reviewed Add.: Kangyu Industrial Park, North Section of West Central Ring Road, Wanggou Town, Lanshan District, Linyi City, Shandong Province

The Energy Management System of the above organization has been assessed and Found to be in accordance with the requirements of the standard:

GB/T 23331-2020 / ISO 50001:2018 & RB/T 114-2014、RB/T 119-2015

Scope of this management Certification

The energy management activities involved in the production of PE and PPR pipes by Shandong Kangyu Pipe Industry Co., Ltd located in Kangyu Industrial Park, North Section of West Central Ring Road, Wanggou Town, Lanshan District, Linyi City, Shandong Province (refer to the annex for comprehensive cnergy consumption of annual output or outputvalue per unit product and energy consumption accounting boundary)

First S.A.	Labelling	Second S.A.	Labelling	Third S.A.	Labelling

The certified organization must accept at least one surveillance audit annually and a qualified mark shall be attached onto the certificate, within validity period of the certificate, then the certificate can be maintained valid.
For more details of this certificate, please login CNCA' s website: www.cnca.gov.cn.
For the validity of the certificate, please scan the QR codes on the right ride for accurate information.

华信创认证

Date of Original Issued:7 Apr. 2024　　Valid from:7 Apr. 2024　　Valid until:6 Apr. 2027
Room 228, Building 2, No.28 Zhenxing Road, Science Park, Changping District, Beijing　　010-57146599

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PURSUING 100% SATISFACTION

SERVICE

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- 山东黄金集团有限公司
- 中国黄金集团有限公司
- 招金矿业股份有限公司
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- 中国平煤神马控股集团有限公司
- 西部矿业股份有限公司
- 江西润鹏矿业股份有限公司
- 江西赣锋锂业集团股份有限公司
- 山东能源集团有限公司
- 中国铝业集团有限公司
- 内蒙古伊泰集团有限公司
- 淮北矿业（集团）有限责任公司
- 中国神华能源股份有限公司
- 贵州盘江煤电集团有限责任公司
- 河南神火集团有限公司
- 山西焦煤集团有限责任公司
- 山西潞安矿业(集团)有限责任公司
- 徐州矿务集团有限公司
- 西藏巨龙铜业有限公司
- 西藏玉龙铜业股份有限公司
- 吉林大黑山铂业股份有限公司
- 陕西子长玉泰矿业有限公司
- 山西阳泉市燕龛煤炭有限责任公司
- 山西煤炭运销集团保安煤业有限公司
- 晋孟集团孟县东坪煤业有限公司
- 山西阳泉市上社煤炭有限责任公司
- 内蒙古武川县金煜林矿业有限公司

Thank you for
Believing in Kangyu
My partner